

PARTS LIST CATALOG

Old Machine



No. 2 CUTTER AND TOOL GRINDER



Identification No. 1D-LD
Publication No. M-826-6

WHEN ORDERING REPAIR PARTS

1. Give complete Serial Number of Machine.
2. Give Part Number and Name.
3. Give Amount Required.

UNLESS THE ABOVE DATA IS INCLUDED WE CANNOT FILL YOUR ORDER

This Booklet should be Filed in Tool Crib and issued by Tool Check only

MILLING MACHINE DIVISION

THE CINCINNATI MILLING MACHINE CO.

CINCINNATI, OHIO 45209, U. S. A.

USE THIS BOOK ONLY FOR MACHINES THAT HAVE THE DEEP POCKET IN FRONT OF BASE AND THAT DO NOT HAVE A ONE SHOT LUBRICATING SYSTEM.

THIS service manual and repair parts catalog was made for the purpose of helping the maintenance foreman, millwright, and operator to know the correct method of installing and caring for the machine, and to facilitate the ordering of repair parts.

- CINCINNATI Cutter and Tool Grinders are built to a high degree of precision and accuracy. When properly installed, and with ordinary care, they will give many years of good service.
- At the time of writing, this booklet was completely up to date. However, due to continual improvements in design, it is possible that descriptions contained herein may vary to a slight extent from the machine delivered to you. This would imply nothing more than the fact that the machine had been improved to better fill your requirements.

MODEL EM



THIS CATALOG TO BE USED FOR MACHINES WHOSE SERIAL NUMBER BEGINS WITH ID THAT WERE SHIPPED PRIOR TO 1947.

MILLING MACHINE DIVISION
THE CINCINNATI MILLING MACHINE CO.
CINCINNATI, OHIO 45209, U.S.A.

SERVICE INSTRUCTIONS

PATENT NOTICE—The machines and attachments illustrated and described in this booklet are protected by issued and pending United States and Foreign Patents. The design and specifications of these machines and attachments are subject to change without notice.

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Cincinnati, Ohio, U. S. A.

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SERVICE INSTRUCTIONS

LUBRICATION CHART

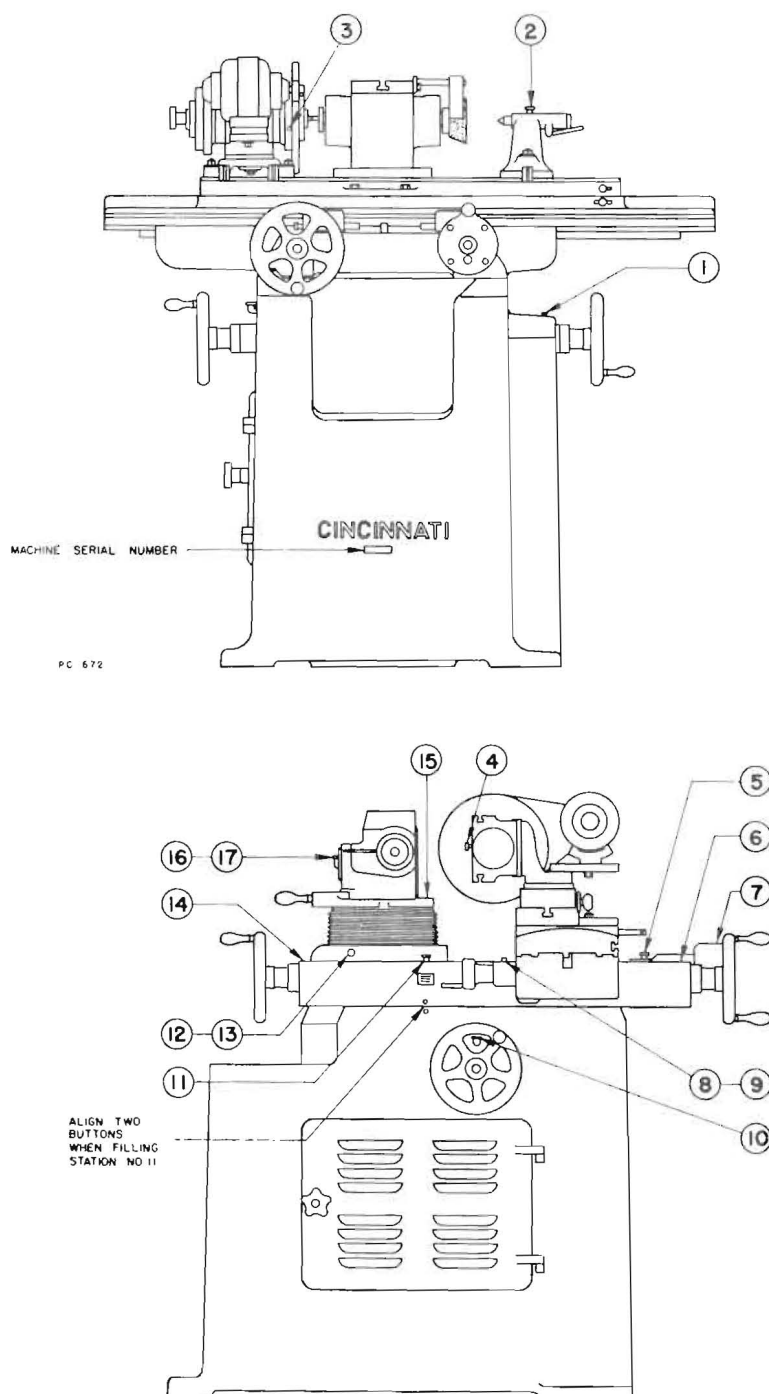


FIGURE 1

Lubrication Charts for Cincinnati No. 2 Cutter and Tool Grinder

LUBRICATING INSTRUCTIONS AND SPECIFICATIONS

When to Oil	Station Number	Parts Lubricated	Instructions	Specifications
Once a Day	1	Elevating Shaft Bearing	Oil with squirt can	CMMCo.—No. P-55 Mineral Oil Viscosity 200 to 220 seconds Saybolt at 100° F.
	2	Tailstock	Oil with squirt can	
	3	Work Head Dial	Remove screw and oil with squirt can	
	4	Work Head Spindle	Oil with squirt can	
	5	Differential Shaft Bearings	Oil with squirt can	
	6	Front Cross Screw Brg.	Oil with squirt can	
	7	Differential Gear Bearings	Remove screw and oil with squirt can	
	8-9	Shaft Bearing and Saddle Bearing on Column	Oil liberally with squirt can	
	10	Elevating Shaft and Worm	Oil with squirt can	
	11	Cross Screw	Oil with squirt can. Align two buttons when oiling	
	12-13	Sleeve Bearing in Base	Oil with squirt can	
	14	Rear Cross Screw Bearing	Oil with squirt can	
	15	Column Bearing in Sleeve	Remove screw and oil with squirt can	
Refill When Necessary	16-17	Wheel Head Spindle	Fill oil cups, when spindle is at rest, to top of glass (high oil level). Drain and refill every three months. About $\frac{1}{8}$ pint required each filling. (If spindle not provided with oil cups, it has prelubricated and sealed bearings.)	CMMCo.—No. P-45 High-grade spindle oil, equivalent to Socony - Vacuum Velocite Oil "C" Viscosity 120 to 130 seconds Saybolt at 100° F.
	Internal Attachment	Spindle	Adjust to use about one cup of oil each day	

DRIVING MOTOR IN BASE

Once a Month		Motor Bearings (two cups) . . .	Keep grease cup filled—one turn monthly (If no fittings, motor bearings are prelubricated and sealed.)	Good grade of cup grease without fillers. Min. flow temperature 270° F.
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SERVICE INSTRUCTIONS

NOMENCLATURE CHART

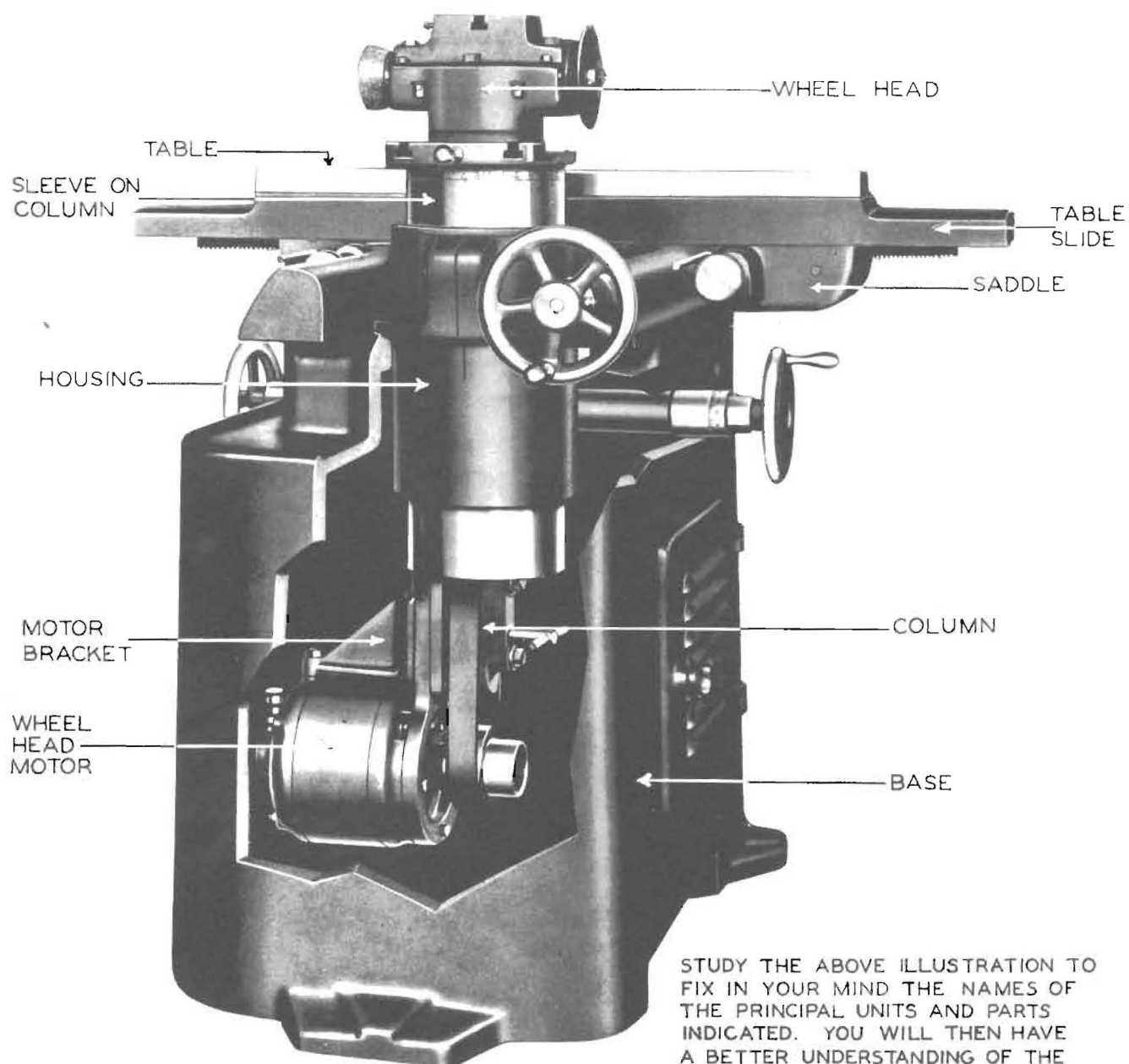


FIGURE 2

Rear View CINCINNATI Cutter and Tool Grinder

PATENTED

INSTALLATION INSTRUCTIONS

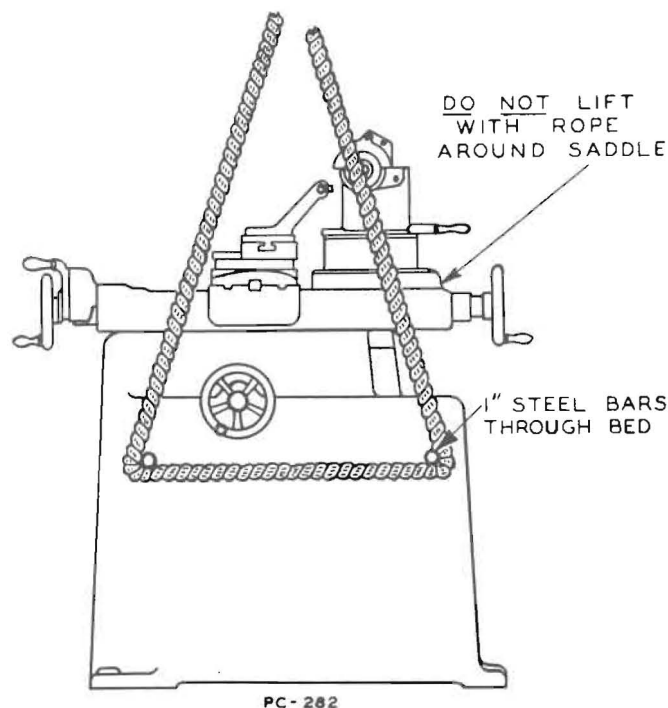


FIGURE 3

Shows Method of Lifting

Lifting the Machine:

Four $1\frac{1}{2}$ " holes, two on each side of the base, are provided for lifting the machine. Two 1" or $1\frac{1}{4}$ " rods should be passed thru the holes in base for lifting the machine with a crane. The saddle should be moved close to the column to avoid interference with the lifting rope. NEVER lift the machine with a rope slung around the saddle.

FOUNDATION

Foundation requirements depend upon so many factors, such as speed of the machine, balance of rotating parts, rate of metal removal, etc., that it is not feasible or practical to devise specifications which will fit all conditions. The No. 2 Cutter and Tool Grinder is a comparatively small self-contained machine and therefore does not need exceptionally heavy flooring or supports to maintain its weight.

The work ground on this machine must be accurate and free from chatter. Often chatter in the work is caused by a neighboring machine. Therefore, it is absolutely necessary to locate this machine in such a place where it will not pick up vibrations from other equipment.

Upper Floors:

If the machine is to be located on an upper floor or balcony, place it directly over a supporting beam or girder. There will be less possibility of vibrations being transmitted to it by other machines.

SERVICE INSTRUCTIONS

Leveling:

After the machine has been moved to its proper location, it must be carefully leveled before grouting or bolting it to the floor.

Do not try to level a machine that has just been brought into the shop. Give it 24 hours to take on room temperature.

For leveling machine tools, a sensitive graduated tube spirit level is required, reading to 10 seconds per graduation (.0005" per foot). Ordinary levels should not be used because they are not accurate enough. The actual length of frame has no bearing on accuracy. The glass tube alone determines its sensitiveness. A short level with a long tube is best. It costs less and can be handled or stored with less danger of damage. Do not expect a machine to remain level permanently. Buildings settle and floors warp. A periodical check-up is necessary to maintain utmost precision and service.

Cleaning:

Do not move any machine slides before cleaning thoroughly and oiling.

Use a good grease solvent; rags should be used instead of waste. Do not use an air hose for cleaning as it will drive dirt and grit into holes and under bearings. Use a stiff bristle brush to get into the corners.

When the machine is thoroughly clean, rub clean machine oil over all the ways and make sure there is no grit left.

Prevent the formation of permanent stains by periodic cleaning after installation.

Important Note for Electrician:

Be sure the motor is running in the correct direction and at the required R.P.M., which is indicated on the motor plate. The grinding wheel head motor, running at 3425 R.P.M., drives the wheel spindle at 3850 or 5735 R.P.M., depending on the pulley step used. If the motor is running backwards, the grinding wheel collet nuts will back off and may result in serious damage to both operator and machine.

ADJUSTMENTS

Adjusting the Workhead Spindle Bearings:

There should be no occasion to adjust these bearings very often, but in case it becomes necessary, Nut "B" provides the adjustment.

1. Loosen screw "A" (Fig. 5) in lock nut "B".
2. Tap the lock nut to loosen the lock shoe.
3. Hold the spindle with one hand and turn nut "B" with the other, until there is no evidence of looseness.
4. Retighten screw "A".

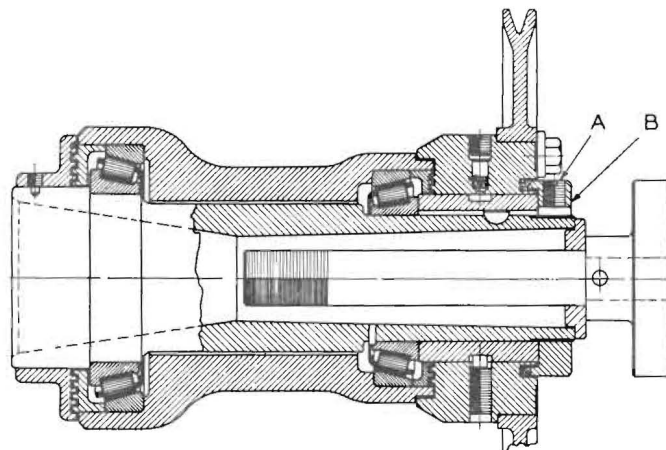


FIGURE 5

Section Through Workhead Spindle

Tightening the Main Driving Belt:

1. Stop the motor.
2. Open door in side of the base.
3. Loosen the two hex head screws which hold the motor bracket to the column.
4. Use pinion "H" (Fig. 6) to adjust the belt tension.
5. Tighten the screws.

DISMANTLING INSTRUCTIONS

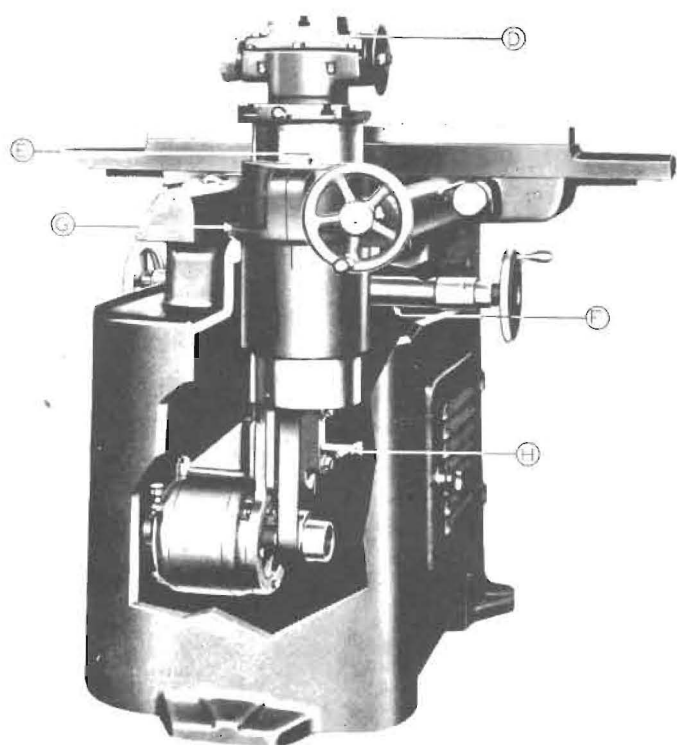


FIG 6 REAR VIEW

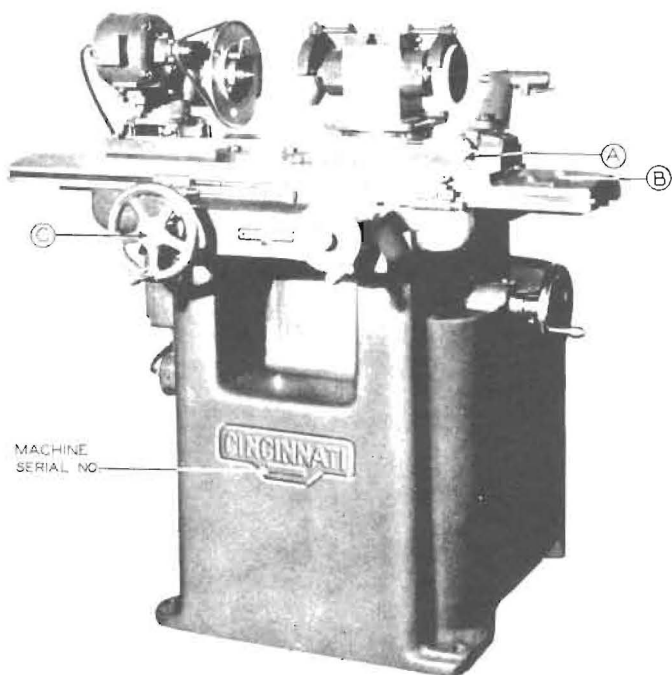


FIG 7 FRONT VIEW

Familiarize yourself with the proper names of the various parts before attempting to remove any part from the machine. A few minutes of study may save hours of time and trouble.

Removing Table and Table Slide:

1. Remove the two $\frac{1}{2}$ " hexagon nuts $\frac{7}{8}$ " across flats which clamp table to table slide.
2. Disengage lever "A" (see Fig. 7), swivel the table and lift off.
3. Remove taper pin "B" on right-hand end of slide.
4. Remove five fillister head screws which hold the feed rack to slide and which are exposed after table is removed.
5. Lift slide straight up.

Removing Cross Feed Screw and Saddle:

1. Remove front handwheel "C". This is keyed to the cross screw and held in place with a $\frac{3}{8}$ " headless set screw. Remove key and dial.
2. Removing dial exposes the bearing lockwasher nut. Straighten tang of lock washer and remove adjusting nut.
3. Turn rear handwheel clockwise (from rear of machine) to remove cross screw. Tap front end of screw lightly until screw is free of bearing.
4. Lift saddle straight up.

Removing the Grinding Wheel Head and Column:

The wheel head is fastened to the column and extends through sleeve on the column. (See Fig. 6.)

1. Remove the wheel head motor. (See paragraph "Removing Wheel Head Motor", Page 12.)
2. Loosen wheel head clamping screw "D" and the unit is free to be lifted out of the machine.

Removing the Sleeve on Column:

The grinding wheel head and column must first be removed (see above).

1. Remove dust guard "E" on top of housing. (See Fig. 6.)
2. Raise the sleeve by turning elevating handwheel until the rack is free of the pinion.
3. The sleeve may then be lifted out.

NOTE—When replacing the sleeve, assemble all the housing parts first so the sleeve will not fall through.

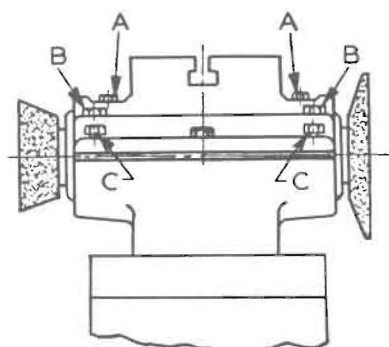
Removing the Housing:

1. Remove cover over opening in top of base and remove the set screw in the housing which holds sleeve "F". Sleeve "F" can then be drawn out of the machine. (See Fig. 6.)
2. Remove hexagon head screws "G" which hold the housing to the base. The housing may then be lifted out.

Removing the Spindle Unit:

1. Remove the instruction plate held to the front of the column by four screws.
2. Remove two screws "A", Fig. 8.
3. Loosen clamping screws "B" and tighten jack screws "C".
4. The spindle then can be removed.

NOTE—The spindle is equipped with special purpose preloaded ball bearings and fitted by thoroughly experienced assemblers. We strongly recommend that you send the spindle unit to us when it is in need of adjustment or repair. In order to get the best service out of the spindle, be sure to follow the lubrication instructions found on page 5.



PC-192

FIGURE 8

Rear View of Grinding Wheel Head

Replacing the Main Driving Belt:

Loosen the spindle as outlined in paragraph "Removing the Spindle Unit", Page 11.

1. Push the spindle through the wheel head a sufficient amount to slip off the worn belt and to hook on a new belt through the opening in front of the wheel head.
2. Replace the spindle.
3. Replace set screws "A". These screws must fit easily their entire length so that the bearing retainers will not be sprung.
4. Release the jack screws "C" and lightly tighten clamp screws "B".

Removing the Grinding Wheel Head Motor:

1. Lower the wheel head to its lowest position.
2. Loosen the two hex head screws, one above and one below pinion "H" shown in Fig. 6. Remove the belt by raising motor.
3. Block up the motor.
4. Remove the two hex head screws, and the motor and motor bracket are free from the column.

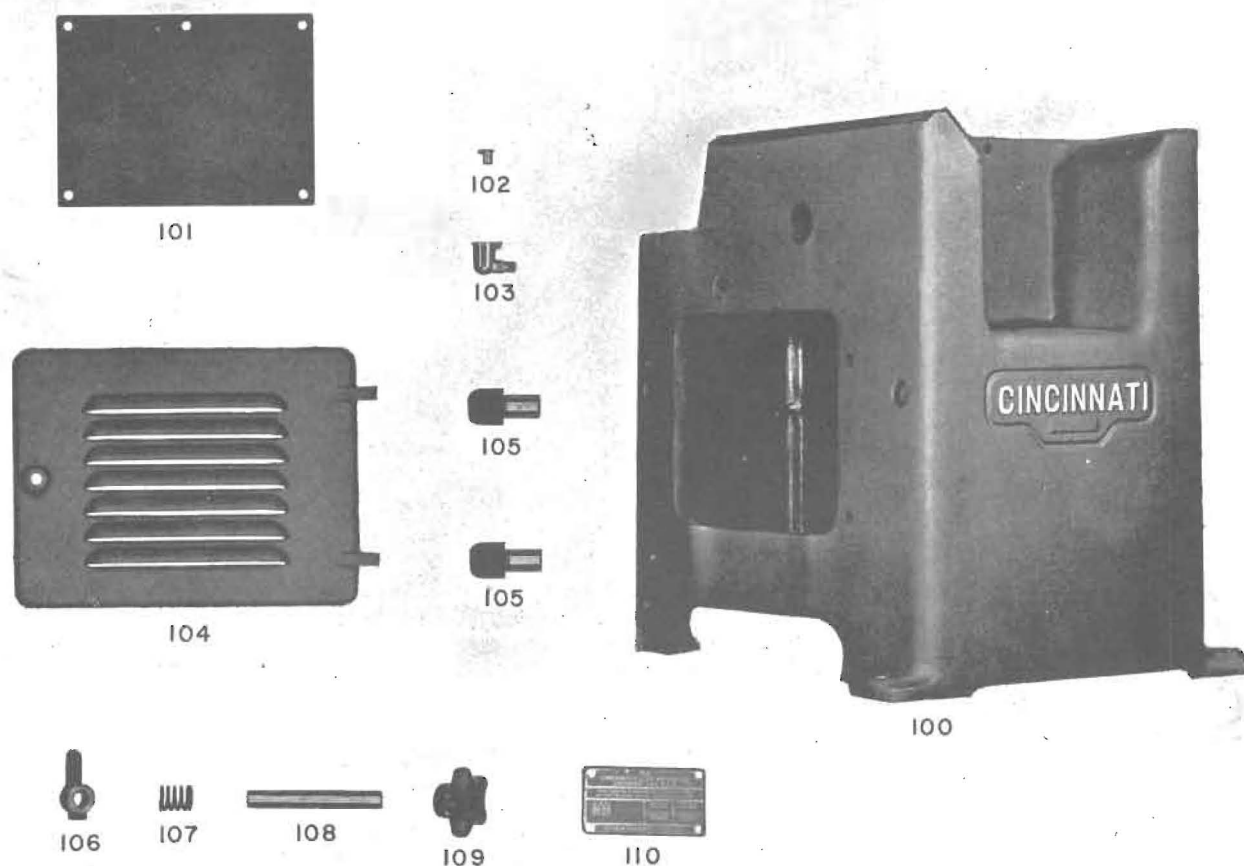
Removing the Cross Screw Nut:

The cross feed screw and saddle must first be removed.

1. Remove the lock screw which is found directly above the door in the base.
2. Remove dog point set screw which is found under the lock screw.
3. The cross screw nut may then be lifted out. (It may be tapped gently on the lower end by reaching through the doorway.)

NOTE—When reassembling, do not replace dog point set screw until the cross feed screw is in place and the saddle is away from the column its full range.

BASE PARTS



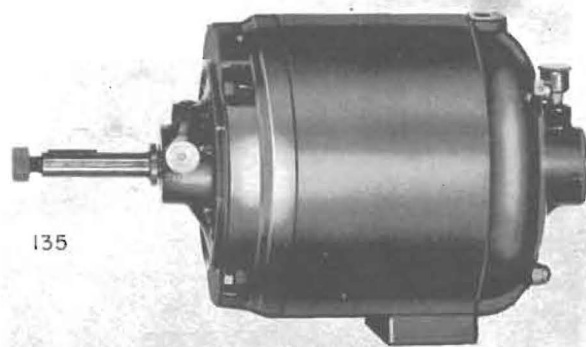
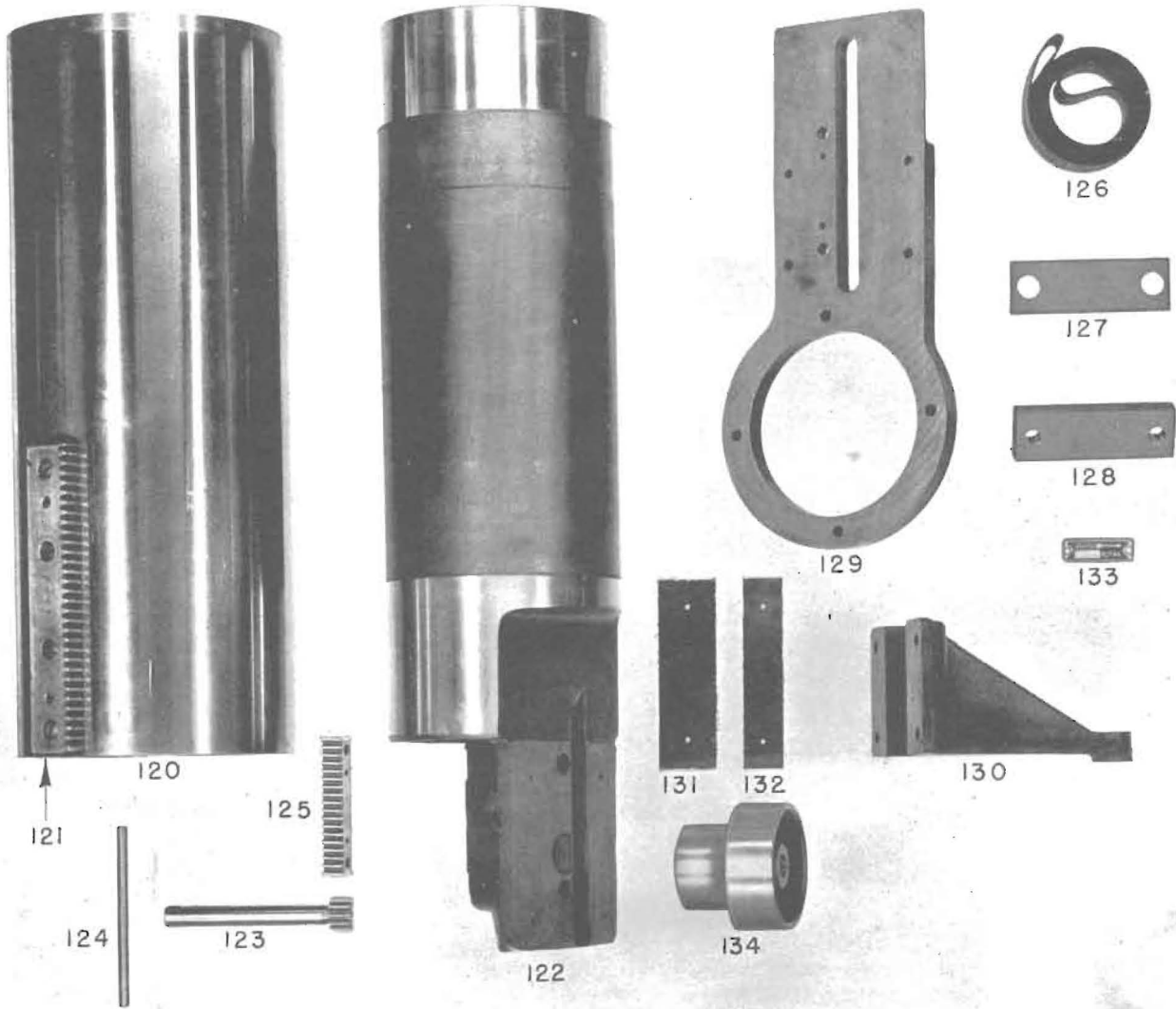
BASE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
100	1	Base.....	77092	106	1	Latch.....	6105
101	1	Plate—cover.....	62440	107	1	Spring.....	64724
102	1	Oiler.....	44980	108	1	Stud—for latch.....	64723
103	2	Cup—oil ($\frac{1}{8}$ " pipe thread).....	109100		1	Stud—for latch (Fitted).....	64723F
104	1	Door.....	98170	109	1	Knob—star.....	3920
105	2	Hinge.....	109969	110	1	Plate—patent.....	70645

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

PARTS LIST



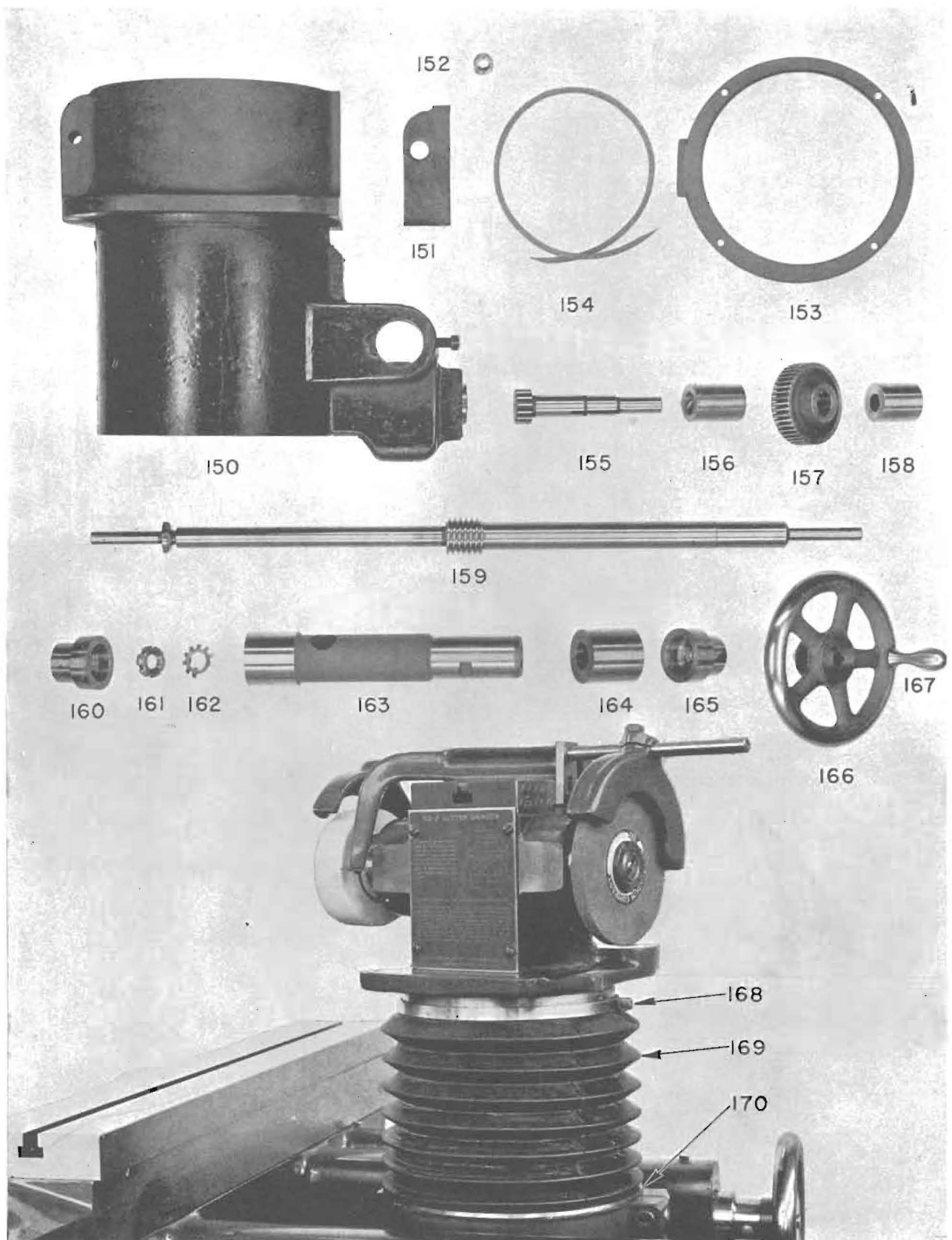
COLUMN AND MOTOR DRIVE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
120	1	Sleeve—on column	64781	127	1	Cushion—bracket clamp	64784
121	1	Rack—for elevating wheel head	62439	128	1	Clamp—motor bracket	64783
122	1	Column	64782	129	1	Support—motor	64726
	1	Column (25 cycle, 1450 R.P.M. motor only)	66815	130	1	Bracket—motor	64729
123	1	Pinion—rack, belt tightener	115109	131	1	Cushion—motor support wide	64786
124	1	Pin—handle ($\frac{3}{8}$ " dia. x 6" long)	62438	132	1	Cushion—motor support narrow	64785
125	1	Rack—belt adjusting	115110	133	1	Plate—direction speed	4007
126	1	Belt—endless 85" long x $1\frac{1}{4}$ " wide, 50 cycles, 2850 R.P.M., and 60 cycles, 3425 R.P.M. motors	62437	134	1	Pulley—motor (50-60 cycles—2850-3425 R.P.M. motors)	113925
	1	Belt—endless 89" long x $1\frac{1}{2}$ " wide, 25 cycles, 1425 R.P.M., and 40 cycles, 2225 R.P.M. motors	74940		1	Pulley—motor (25 cycle—1425 R.P.M. motor)	107465
					1	Pulley—motor (40 cycle—2225 R.P.M. motor)	107466
				135	1	Motor— $\frac{3}{4}$ H. P.	122864
				136	1	Plate—ring sleeve (Inside No. 134) ..	105653

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

PARTS LIST



HOUSING AND WHEEL HEAD ELEVATING PARTS LIST

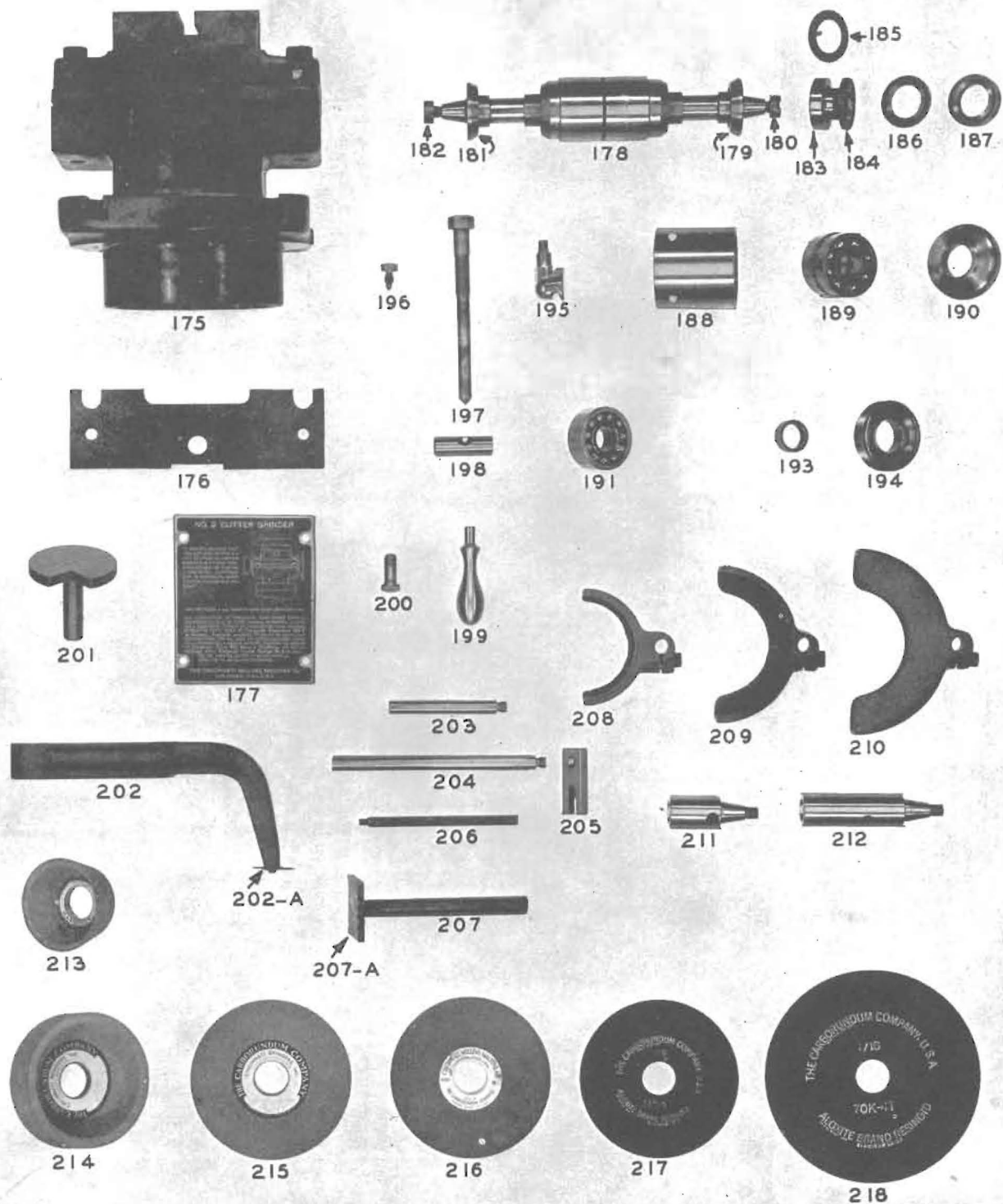
Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
150	1	Housing (Fitted)	104249R.F.	161	1	Nut—lock ($\frac{3}{4}$ " dia. hole)	3806
	1	Housing	104249	162	1	Washer—lock ($\frac{3}{4}$ " dia. hole)	3805
151	1	Gasket—cardboard	64790	163	1	Sleeve—elevating worm shaft	64727
152	4	Bush—adjusting	78386	164	1	Bush—elevating	70832
153	1	Ring—housing (old style)	68907	165	1	Dial—right hand on elevating shaft (English)	62536
154	1	Gasket—housing ring (old style)	64720		1	Dial—right hand on elevating shaft (Metric)	79942
155	1	Pinion—elevating rack	62441	166	2	Wheel—hand (Fitted with handle)	3510F
156	1	Bush—rack pinion long	62442	167	2	Handle	3502
157	1	Wheel—elevating worm	62444	168	1	Ring—sleeve	103361
158	1	Bush—rack pinion	62443	169	1	Guard—dust	103072
159	1	Shaft—elevating worm	70836	170	1	Ring—housing	103169
160	1	Dial—left hand, on elevating shaft (English)	70833	171	1	Plate—ring sleeve	105653
160	1	Dial—left hand, on elevating shaft (Metric)	79943				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

PARTS LIST

GRINDING WHEEL HEAD PARTS LIST



CGC-5

CINCINNATI No. 2 CUTTER AND TOOL GRINDER



GRINDING WHEEL HEAD PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
175	1	Body—wheel head.....	123374	204	1	Stud—arm for wheel guard 12" long.....	62450
176	1	Shim—wheel head.....	101445	205	1	Arm—for wheel guard stud.....	62267
177	1	Plate—instruction on wheel head (English).....	118846	206	2	Wrench—pin.....	62281
178	1	Spindle—ball bearing. Std. speeds 40 and 60 cycle, A. C. and D. C.....	69923	207	1	Handle—wrench collet nut.....	69919
	1	Spindle—ball bearing. 25 cycle, 1425 R.P.M.....	69924	207-A	1	Wrench—collet nut.....	67797
	1	Spindle—ball bearing. 50 cycle, 2850 R.P.M.....	73286	208	1	Guard—wheel No. 23—3 1/2" flaring cup.....	69492
179	1	Nut—dust guard, small—Right Hand.....	67793	209	1	Guard—wheel No. 24—5" straight cup.....	62270
180	1	Nut—on spindle—Right Hand.....	67787	210	1	Guard—wheel No. 21—25—28 wheels.....	62269
181	1	Nut—dust guard, small—Left Hand.....	67794	211	1	Extension—spindle 2" long.....	73281
182	1	Nut—on spindle—Left Hand.....	67788	212	1	Extension—spindle 4" long.....	67791
183	5	Collet—grinding wheel.....	67790	213	1	Wheel—Cincinnati No. 23TR.....	*102843
184	5	Nut—on collet.....	67789	213	1	Wheel—Cincinnati No. 23TF.....	*102844
185	5	Washer—lock 1 1/4" hole, on collet.....	67786	213	1	Wheel—grinding Cincinnati No. 23—3 1/2" x 1 1/2" x 1 1/4", flaring cup.....	67783
186	1	Collar—spacing 1/8" for wheels Nos. 21-23-24-27.....	67784	214	1	Wheel—Cincinnati No. 24TR.....	*102845
187	1	Collar—spacing 3/8" for wheels Nos. 28 and 30.....	67785	214	1	Wheel—Cincinnati No. 24TF.....	*102846
188	2	Retainer—ball bearing.....	67611	214	1	Wheel—grinding Cincinnati No. 24—5" x 1 1/2" x 1 1/4", straight cup.....	62277
189	4	Bearing—ball—New Departure. (These bearings are matched in pairs). (Early machines only).....	73620	215	1	Wheel—Cincinnati No. 21TR.....	*102847
			67612	215	1	Wheel—Cincinnati No. 21TF.....	*102848
190	1	Nut—right retainer.....	77724	215	1	Wheel—grinding Cincinnati No. 21—6" x 3/4" x 1 1/4", dished.....	60481
191	2	Bearing—ball—S.K.F. self-aligning.....	77725	216	1	Wheel—Cincinnati No. 25TR.....	*102849
193	1	Collar—Spindle—only with S.K.F. bearings.....	77780	216	1	Wheel—Cincinnati No. 25TF.....	*102850
194	1	Nut—left retainer.....	78771	216	1	Wheel—grinding Cincinnati No. 25—6" x 1 1/2" x 1 1/4", disc.....	60479
195	2	Oiler—elbow (Early machines only).....	67614	217	1	Wheel—grinding Cincinnati No. 28—6" x 1 1/8" x 1 1/4", disc.....	67782
196	2	Screw—retainer locating.....	64793	218	1	Wheel—grinding Cincinnati No. 30—8" x 1 1/8" x 1 1/4", cut-off.....	74012
197	1	Screw—clamping.....	62273	219	1	Guard—Dust (3/32" Thick).....	118980
198	1	Pin—clamping.....	3502	220	1	Guard—Dust (3/32" Thick).....	123375
199	1	Handle.....	62279	221	1	Cushion—Motor Support—Narrow (1 3/8" wide Neoprene).....	64785
200	2	Screw.....	64887	222	1	Cushion—Motor Support—Wide (2" wide Neoprene).....	64786
201	1	Rest—hand (On demand only).....	65816	980	1	Bearing—Ball.....	134510
202	1	Bracket—centering gage.....	65815				
202-A	1	Plate—centering gage.....	62271				
203	1	Stud—arm 4 1/2" long.....					

*NOTE—Wheels marked with an asterisk are for grinding tungsten carbide cutters only.

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

PARTS LIST

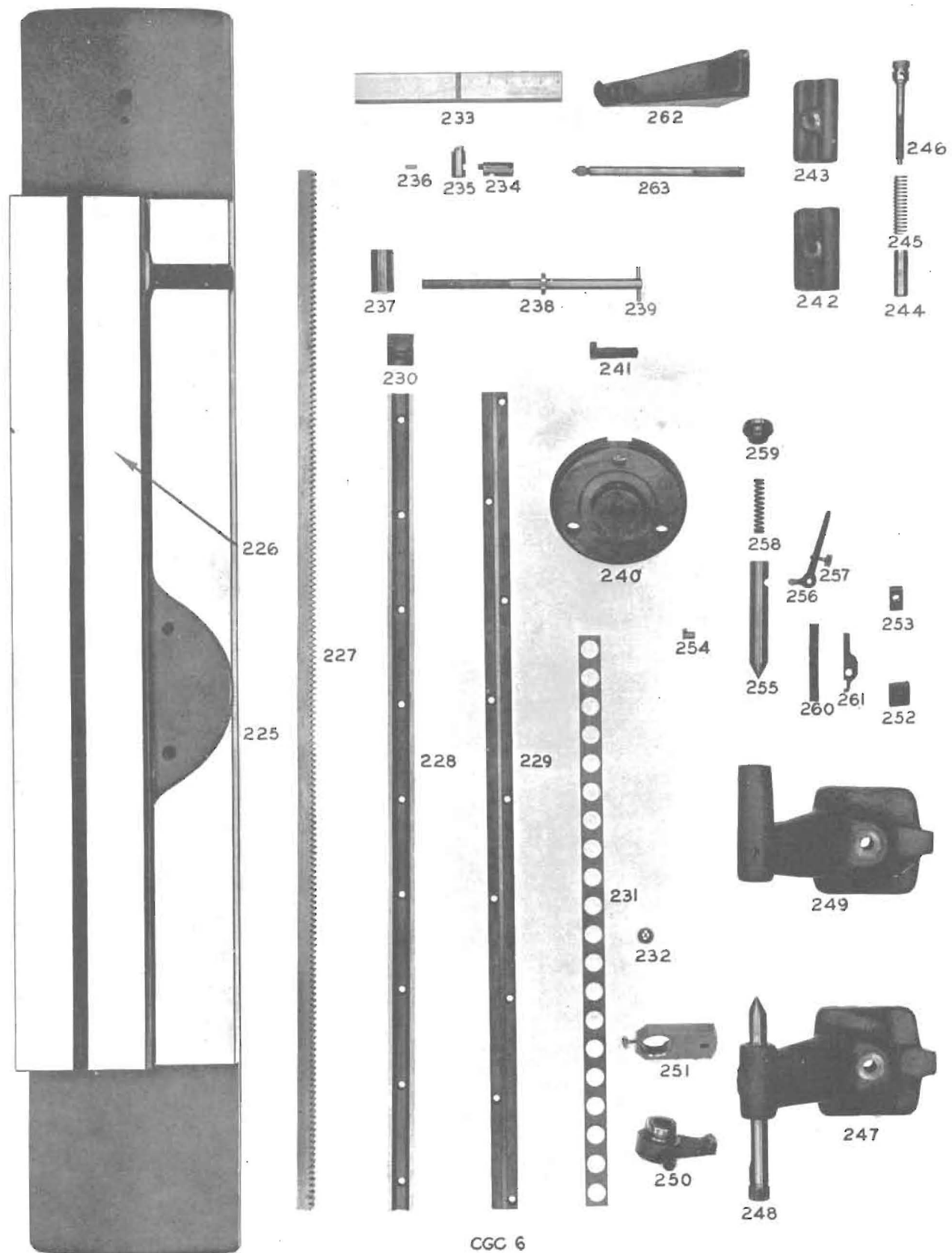


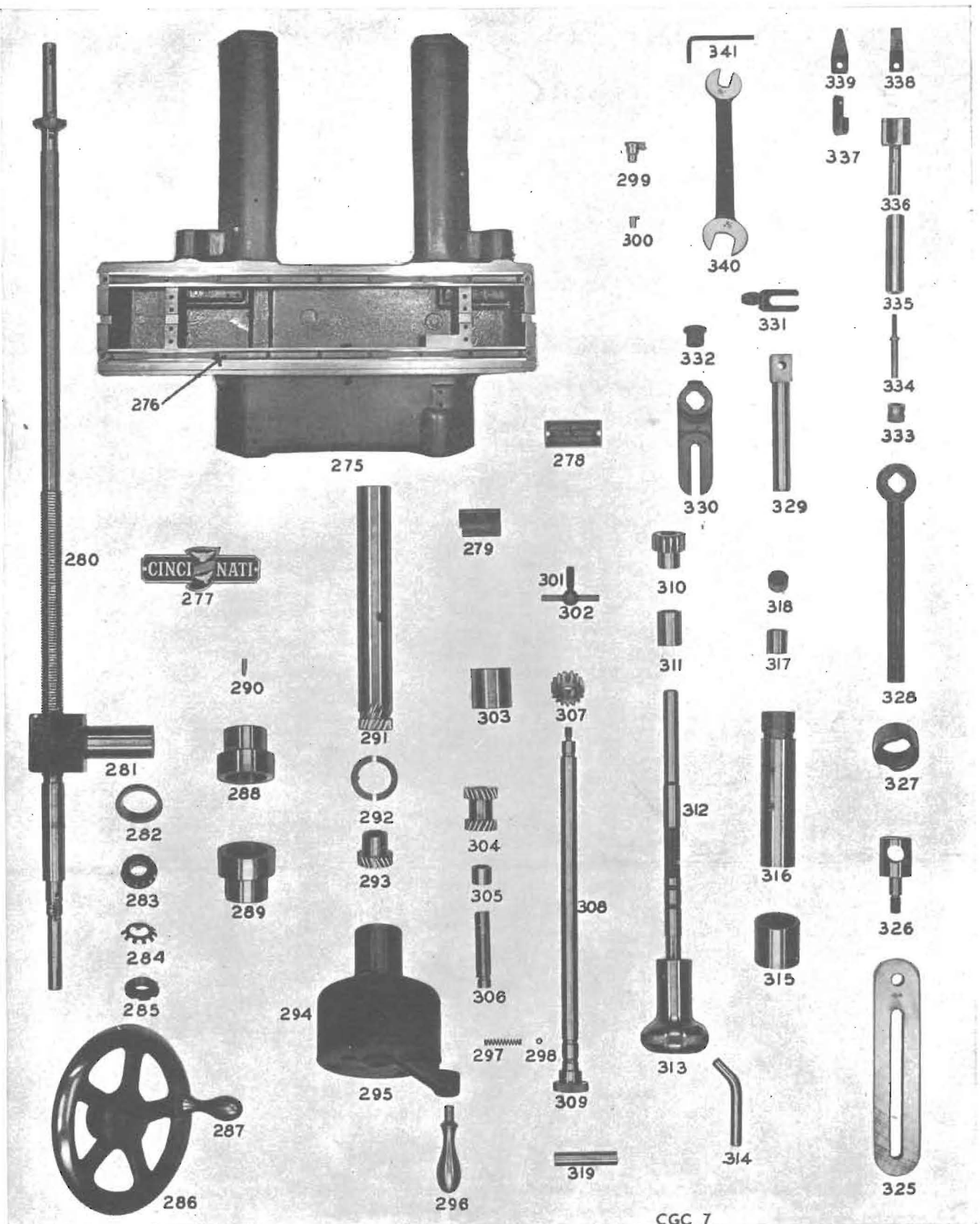
TABLE AND TABLE SLIDE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
225	1	Slide—table	93131	245	2	Spring	1740
226	1	Table	69917	246	2	Screw—thumb	67041
227	1	Rack—on slide	93150	247	1	Bracket—tailstock, left hand	64100
228	1	Track—ball	79950		1	Bracket—tailstock, left hand (fitted complete)	64100R.F.
229	1	Rail—ball	93135	248	1	Centre—for left hand tailstock	64099
230	4	Block—filler	93159	249	1	Bracket—tailstock, right hand	64101
231	2	Cage—ball	109919	250	1	Body—Clearance Setting	65470
232	40	Ball— $\frac{3}{4}$ " diameter	68489	251	1	Plate—Clearance Setting Dial	65471
233	1	Plate—table adjusting (English)	69916	252	2	Clamp—work head	62466
	1	Plate—table adjusting (Metric)	69998	253	2	Tongue—tee slot $\frac{1}{2}$ " wide	3312
234	1	Eccentric	69913	254	1	Oiler—Gits	44980
235	1	Finger	66762	255	1	Center—for right hand tailstock	107832
236	1	Pin— $\frac{3}{16}$ " dia. x $\frac{1}{2}$ " long	3636	256	1	Lever—for right hand tailstock	7269
237	1	Nut—on hand adjusting screw	69912	257	1	Screw—in lever	2255
238	1	Screw—adjusting table	69915	258	1	Spring	791
239	1	Pin— $\frac{3}{16}$ " dia. x $1\frac{1}{2}$ " long	3277	259	1	Cap—for tailstock bracket	64097
240	1	Trunnion—table clamp	69914	260	1	Felt—strip	64098
241	2	Bolt—tee $\frac{1}{2}$ " dia. x $1\frac{3}{4}$ " under the head	62468	261	1	Packing—in tailstock	64095
242	1	Dog—left hand	64961	262	1	Bracket—Diamond	31381
243	1	Dog—right hand	64962	263	1	Carbon—Diamond and Rod	19459
244	2	Plunger—table dog	64963				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

PARTS LIST



SADDLE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
275	1	Saddle.....	79949	307	1	Pinion—table rack.....	110160
276	2	Track—ball.....	78678	308	1	Shaft—long table feed.....	62496
277	1	Plate—name CINCINNATI.....	3966	309	1	Knob—on table feed shaft.....	62498
278	1	Plate—instruction (English).....	79794	310	2	Pinion—on hand feed shaft.....	107411
279	4	Block—safety.....	66302	311	2	Bushing.....	78368
280	1	Screw—cross feed.....	78699	312	2	Shaft—hand feed.....	93132
281	1	Nut—on cross feed screw.....	79951		2	Shaft—hand feed (Fitted with knob and lever).....	93132F
282	2	Cup—roller bearing. Timken No. 05185B.....	78732	313	2	Knob—shaft hand feed.....	65658
283	2	Cone—roller bearing. Timken No. 05075.....	78731	314	2	Lever—shaft hand feed.....	67947
284	2	Washer—lock. $\frac{3}{4}$ " hole.....	3805	315	2	Guard—hand feed shaft.....	79962
285	2	Nut—lock. $\frac{3}{4}$ " hole.....	3806	316	2	Bush—hand wheel shaft.....	78682
286	2	Wheel—hand (Fitted with handle).....	3510F	317	2	Bush—in saddle.....	93149
287	2	Handle.....	3502	318	2	Plug— $\frac{7}{8}$ " diameter.....	3550
288	1	Dial—on cross screw (English) rear.....	78695	319	1	Pin—dog stop in saddle.....	68205
	1	Dial—on cross screw (Metric) rear.....	78693	TOOTH REST PARTS LIST			
289	1	Dial—on cross screw (English) front.....	78696	325	1	Plate—extension.....	22684
	1	Dial—on cross screw (Metric) front.....	78694	326	1	Bolt—eye for clamp.....	26243
290	2	Pin—index.....	79980	327	1	Ring—for clamp.....	23291
291	1	Gear—table feed sleeve.....	75246	328	1	Extension—blade holder support.....	31436
292	1	Collar—split.....	62500	329	1	Support.....	64903
293	1	Gear—on table feed shaft.....	75247	330	1	Block—clamp.....	66751
294	1	Housing—differential gear.....	93320	331	1	Blade—support.....	65624
295	1	Cover—housing.....	93321	332	1	Nut—clamping.....	64906
296	1	Handle.....	3502	333	1	Dial.....	64900
297	1	Spring.....	877	334	1	Screw—adjusting.....	64897
298	1	Ball—steel $\frac{5}{16}$ " diameter.....	13665	335	1	Sleeve—blade support.....	67906
299	1	Oiler—Gits No. 705.....	103384	336	1	Support—blade.....	64901
300	5	Oiler—drive $\frac{5}{16}$ " diameter.....	44980	337	1	Block—swivel blade holder.....	64899
301	2	Screw.....	3536	338	1	Blade— $\frac{1}{2}$ " wide.....	64894
302	2	Handle.....	3537	339	1	Blade—round top.....	65657
303	1	Bush—in saddle.....	3601	340	1	Wrench—double end $\frac{7}{8}$ " x $\frac{9}{16}$ " openings.....	19476
304	1	Gear—on table feed stud.....	75248		1	Wrench— $\frac{1}{4}$ " hollow hex head set screw.....	4047
305	2	Bushing.....	3598				
306	1	Stud—table feed gear.....	62502				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

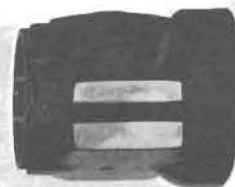
PARTS LIST



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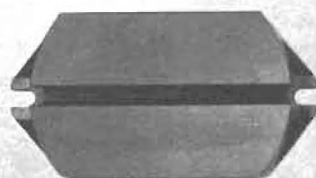
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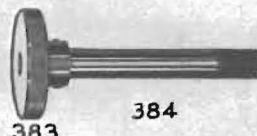
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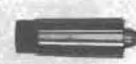


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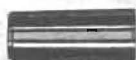
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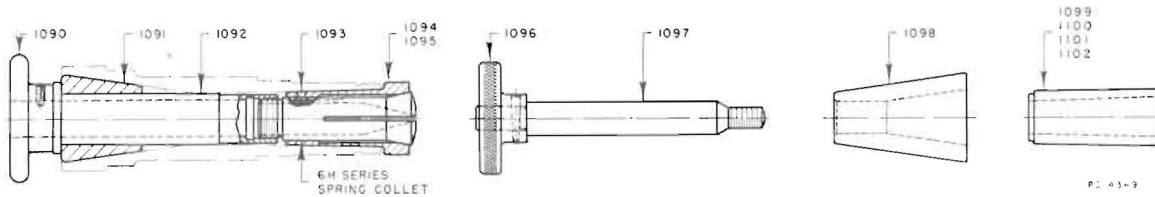
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CGC 8

CINCINNATI No. 2 CUTTER AND TOOL GRINDER



WORK HEAD PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
355	1	Plate—work head	69994	384	1	Bolt—draw-in (Standard Workhead)	69847
356	1	Support—work head	62561		1	Bolt—draw-in (Chuck and Spring collets with No. 50 Taper)	130224
357	1	Head—work	69842			Collar—draw-in bolt	62465
358	1	Screw—thumb	67401	385	1	Center—in swivel head No. 10 B. & S. taper	69049
359	1	Oiler—spring	40533	386	1	Center—in swivel head No. 4 Morse Taper	96789
360	1	Nut—lock on spindle	116171			Collet—extracting rod	64854
361	1	Spindle—work head No. 12 B. & S. taper	69843	387	1	Collet—No. 12 to 7 B. & S. taper	23052
		Spindle—work head No. 5 Morse taper	96787	388	1	Collet—No. 5 to 2 Morse taper	139687
362	1	Bearing cup—Timken No. 382	69844	389	1	Collet—No. 12 to 9 B. & S. taper	7487
363	1	Bearing cone—Timken No. 387W	69911		1	Collet—No. 5 to 3 Morse taper	139688
364	1	Dust ring—small	69991	390	1	Collet—No. 12 to 10 B. & S. taper	7488
365	1	Dust ring—large	69911		1	Collet—No. 5 to 4 Morse taper	139689
366	1	Wick—felt	69992	391	1	Collet—No. 12 to 11 B. & S. taper	16033
367	1	Bush—dial cutter setting	69993	1090	1	Wheel—Hand	139877
368	1	Dial—cutter setting	69848	1091	1	Sleeve—Centering	139878
369	1	Cap—dust	69846	1092	1	Bar—Draw-in	139876
370	1	Bearing cone—Timken 34478	69845	1093	1	Key-in Collet	139879
371	1	Bearing cup—Timken 34300	68663	1094	1	Collet—Adapter (12 B&S Taper Workhead Spindle)	139880
372	1	Raising block	62656	1095	1	Collet Adapter (5 Morse Taper Workhead Spindle)	139881
376	1	Dog—setting	62687	1096	1	Knob—Draw-in	62464
377	1	Pin—dog setting	24896	1097	1	Bolt—Draw-in	139694
378	1	Screw—for setting dog	62456	1098	1	Collet—50 to 40 N.S.	139693
379	2	Clamp—work head	66801	1099	1	Collet—12 B&S to No. 4 Morse	68562
380	1	Stem—for side milling cutters—No. 12 B. & S. taper	96791	1100	1	Collet—12 B&S to No. 1 Morse	139690
	1	Stem—for side milling cutters—No. 5 Morse taper	66800	1101	1	Collet—12 B&S to No. 2 Morse	139691
381	1	Collar on cutter spindle	66799	1102	1	Collet—12 B&S to No. 3 Morse	139692
382	1	Collar—for clamp	62464				
383	1	Knob—draw-in					

SMALL END MILL GRINDING ATTACHMENT

373	1	Bar—sliding collet No. 7 B. & S. Taper	62466	375	1	Bush in work head spindle—use with No. 12 B. & S. taper	30308
	1	Bar—sliding collet No. 2 Morse taper	67684	375	1	Bush in work head spindle—Use with No. 5 Morse taper	96788
374	1	Collar—fitted with lever screw 89206	62467				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to Order Repair Parts."

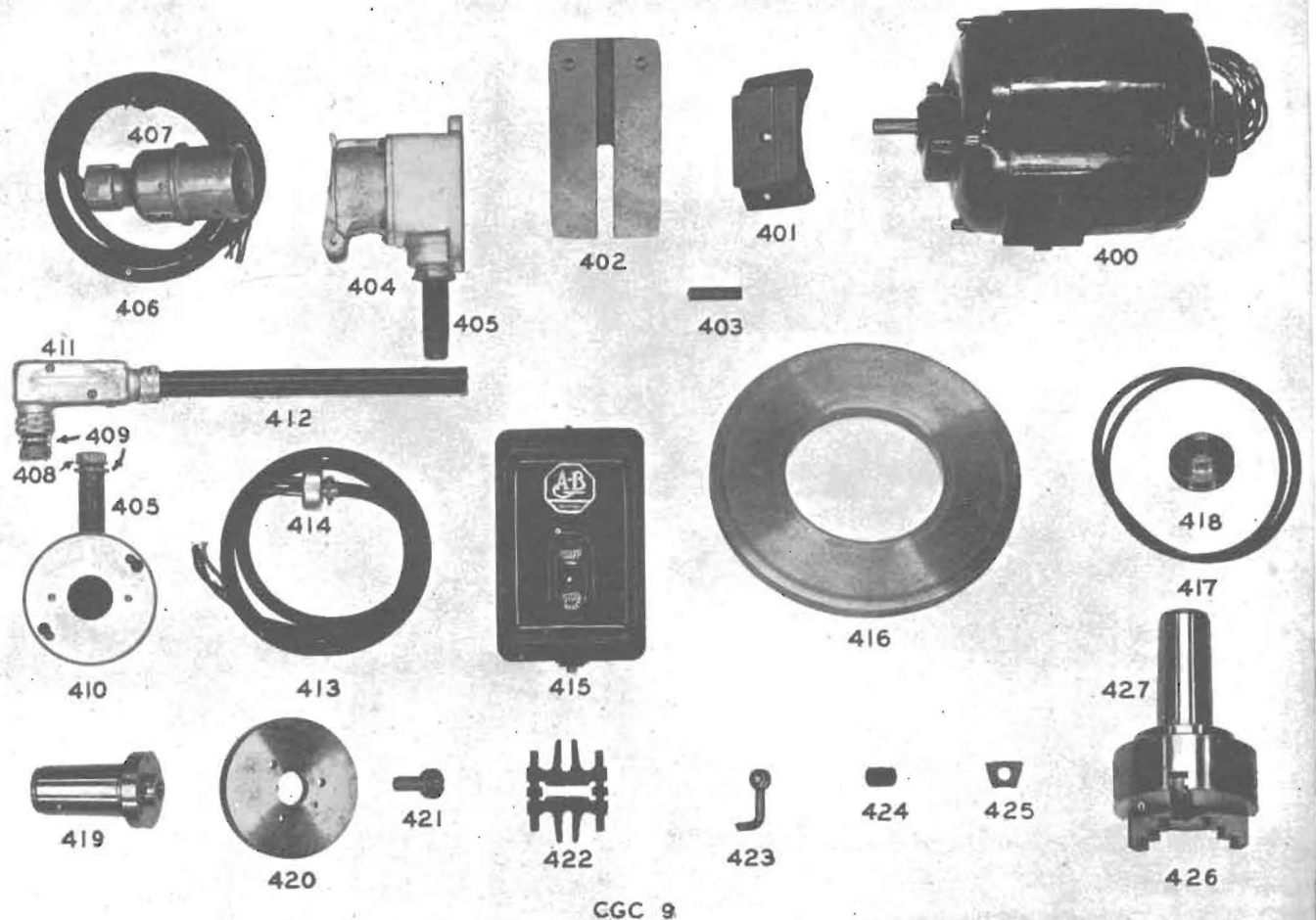


STANDARD ATTACHMENTS
FOR
CINCINNATI No. 2 CUTTER and TOOL GRINDER

CINCINNATI Cutter and Tool Grinder attachments are made with the same high quality that is found in all CINCINNATI products. The internal, cylindrical, surface, gear cutter, long reamer, radius, centerless grinder work blade, and face mill grinding attachments extend the usefulness of both the Plain and Universal Cutter and Tool Grinding Machines. Consult our Sales Engineering Department for authoritative information on the sharpening of your cutters and tools.

Internal, cylindrical, surface and gear cutter sharpening attachments are standard equipment supplied with Universal Machines at no extra cost.

CINCINNATI No. 2 CUTTER AND TOOL GRINDER



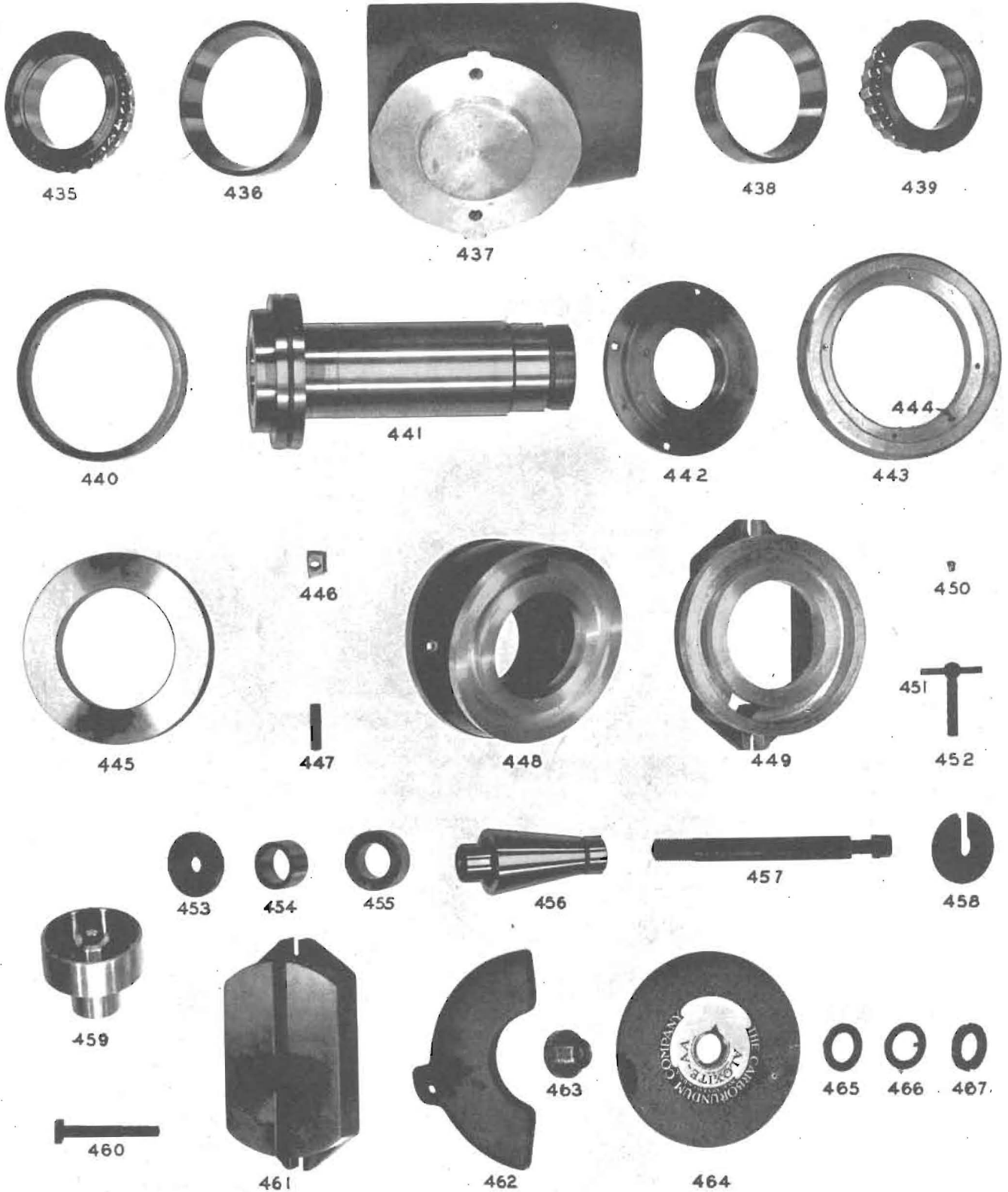
CGC 9

CYLINDRICAL GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
ELECTRICAL CONNECTIONS FOR EARLY TYPE MACHINES				ELECTRICAL CONNECTIONS FOR CURRENT TYPE MACHINES			
401	1	Base—for motor—supplied when standard motor is used.....	69450	400	1	Motor—Master— $\frac{1}{4}$ H.P.	100811
403	1	Stud.....	69559	402	1	Plate—motor support.....	62460
404	1	Outlet—box.....	93890	416	1	Pulley—grooved—large.....	107469
405	1	Conduit— $\frac{1}{2}$ " steel pipe.....	93876	417	1	Belt—work head driving 36" long on inside circle $\frac{3}{8}$ " wide, $\frac{1}{4}$ " thick, 38" included angle.....	62489
406	1	Cord—conductor—65" long.....	93889	418	1	Pulley—grooved on motor.....	64836
407	1	Receptacle—plug.....	93888		1	Pulley—grooved on motor— $\frac{5}{8}$ " hole	109996
408	2	Bushing— $\frac{1}{2}$ ".....	93885		1	Pulley—grooved on motor— $\frac{3}{4}$ " hole	68814
409	2	Nut—lock.....	93884	419	1	Stem—for saw grinding—No. 12 B. & S. taper.....	38910
410	1	Outlet—box.....	93877		1	Stem—for saw grinding—No. 5 Morse taper.....	96790
411	1	Cover—box.....	93629	420	1	Plate—for saw grinding.....	38911
412	2	Unilet—no thread rectangle.....	93881	421	1	Bushing—saw grinding.....	7368
413	1	Conduit— $\frac{1}{2}$ " steel pipe.....	93880	422	1	Dog—balance.....	26147
414	1	Cord conductor—68" long.....	93875	423	1	Dog—carrier.....	7494
415	1	Connector—cord.....	93874	424	1	Spacer—Carrier dog.....	62462
	1	Switch— $\frac{1}{2}$ to 2 H.P., A. C.....	70353	425	2	Clamp—work head pulley.....	62455
	1	Switch— $\frac{1}{2}$ to 1 H.P., D. C.....	77394	426	1	Chuck—4".....	139043
	1	Switch—2 phase.....	93330	427	1	Flange—No. 12 B. & S. taper.....	106981
					1	Flange—No. 5 Morse taper.....	106980

*Give all information found on motor plate. When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base. See page 53 "How to order Repair Parts."

PARTS LIST



* CGC 10

FACE MILL GRINDING ATTACHMENT PARTS LIST

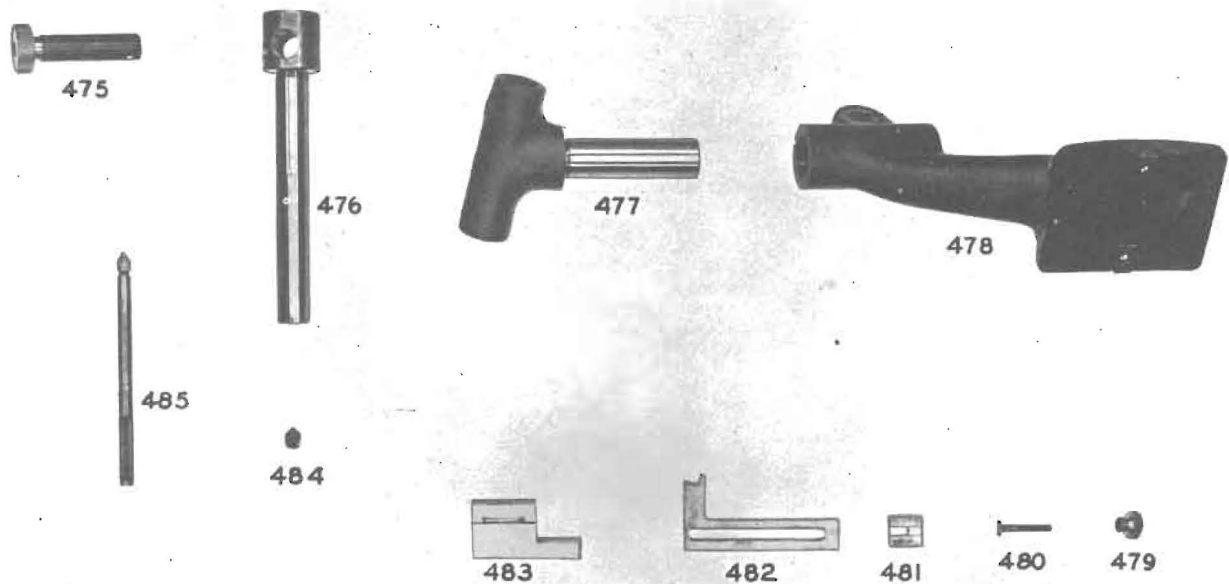
Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
435	1	Cone—bearing Timken No. 52387...	56867	455	1	Bush—arbor.....	68662
436	1	Cup—bearing Timken No. 52637...	57889	456	1	Arbor.....	68637
437	1	Workhead.....	68648	457	1	Bolt—draw.....	68636
438	1	Cup—bearing Timken No. 592A...	58588	458	1	Washer—draw bolt.....	68640
439	1	Cone—bearing Timken No. 598...	58587	459	1	Pulley—Motor—50 and 60 cycle, D. C.....	107467
440	1	Dial.....	68658			Pulley—motor—25 cycle, 1425 R.P.M.....	107468
441	1	Spindle.....	71886			Pulley—motor—40 cycle, 2225 R.P.M.....	107484
442	1	Nut—adjusting on spindle.....	68638	460	2	Bolt—block raising.....	68660
443	1	Rim—spindle nut.....	68639	461	1	Block—raising.....	68663
444	1	Pin.....	3541	462	1	Guard—wheel.....	65376
445	1	Plate adapter.....	68659	463	1	Collet—grinding wheel No. 27.....	67790
446	4	Clamp.....	68644	464	1	Wheel—grinding Cincinnati No. 27— 8" x $\frac{3}{8}$ " x $1\frac{1}{4}$ ", straight.....	65613
447	4	Stud.....	92861	465	1	Collar.....	67784
448	1	Plate—angle.....	68645	466	1	Washer—lock.....	67786
449	1	Base.....	68646	467	1	Nut—collet.....	67789
450	2	Oiler.....	69583				
451	1	Handle.....	3537				
452	1	Screw.....	3538				
453	1	Washer.....	68642				
454	1	Bush—arbor.....	68661				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

PARTS LIST

ANGULAR WHEEL TRUING ATTACHMENT PARTS



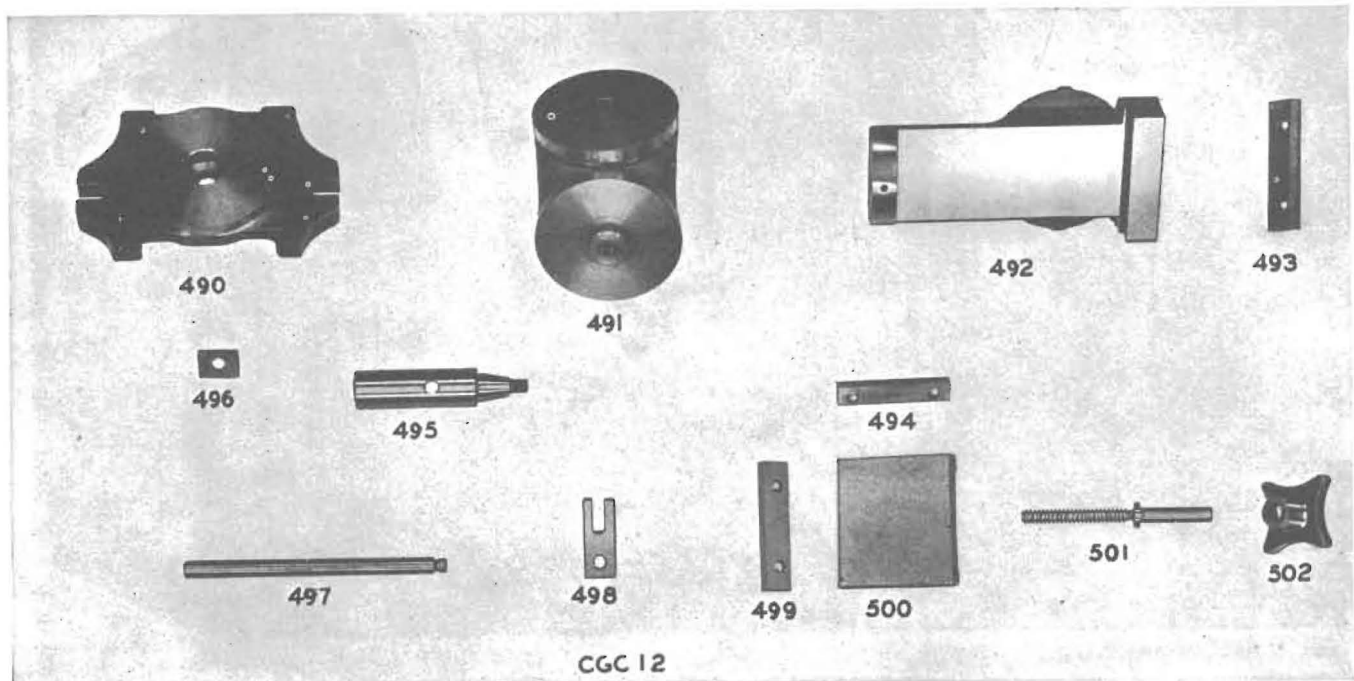
CGC II

ANGULAR WHEEL TRUING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
475	1	Bush—wheel truing	45957	481	1	Guide—cutter setting	46426
476	1	Slide—wheel truing	45955	482	1	Blade—cutter setting	46429
477	1	Holder—wheel truing	46669	483	1	Block—cutter setting	46427
478	1	Bracket—wheel truing	66190	484	1	Key—holder	45956
479	1	Knob—cutter setting	46430	485	1	Carbon diamond and rod	19459
480	1	Screw—cutter setting	46428				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to order Repair Parts."

SURFACE GRINDING ATTACHMENT PARTS



SURFACE GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
490	1	Plate—work head.....	69994	*497	1	Stud—on wheel guard—long.....	62450
491	1	Support—vice body.....	62700	*498	1	Arm—for wheel guard.....	62267
492	1	Body—surface grinding attachment.....	62563	499	1	Jaw on (housing slide).....	7319
493	1	Jaw—body.....	62492	500	1	Slide—vice body.....	62491
494	2	Clamp—vice body slide.....	62494	501	1	Screw—vice body slide.....	62493
*495	1	Extension—spindle 4" long.....	67791	502	1	Knob—on screw.....	102480
496	2	Clamp—work head.....	62456				

*These parts (marked with an asterisk) supplied only as part of the standard machine equipment, and are not included with the attachment.

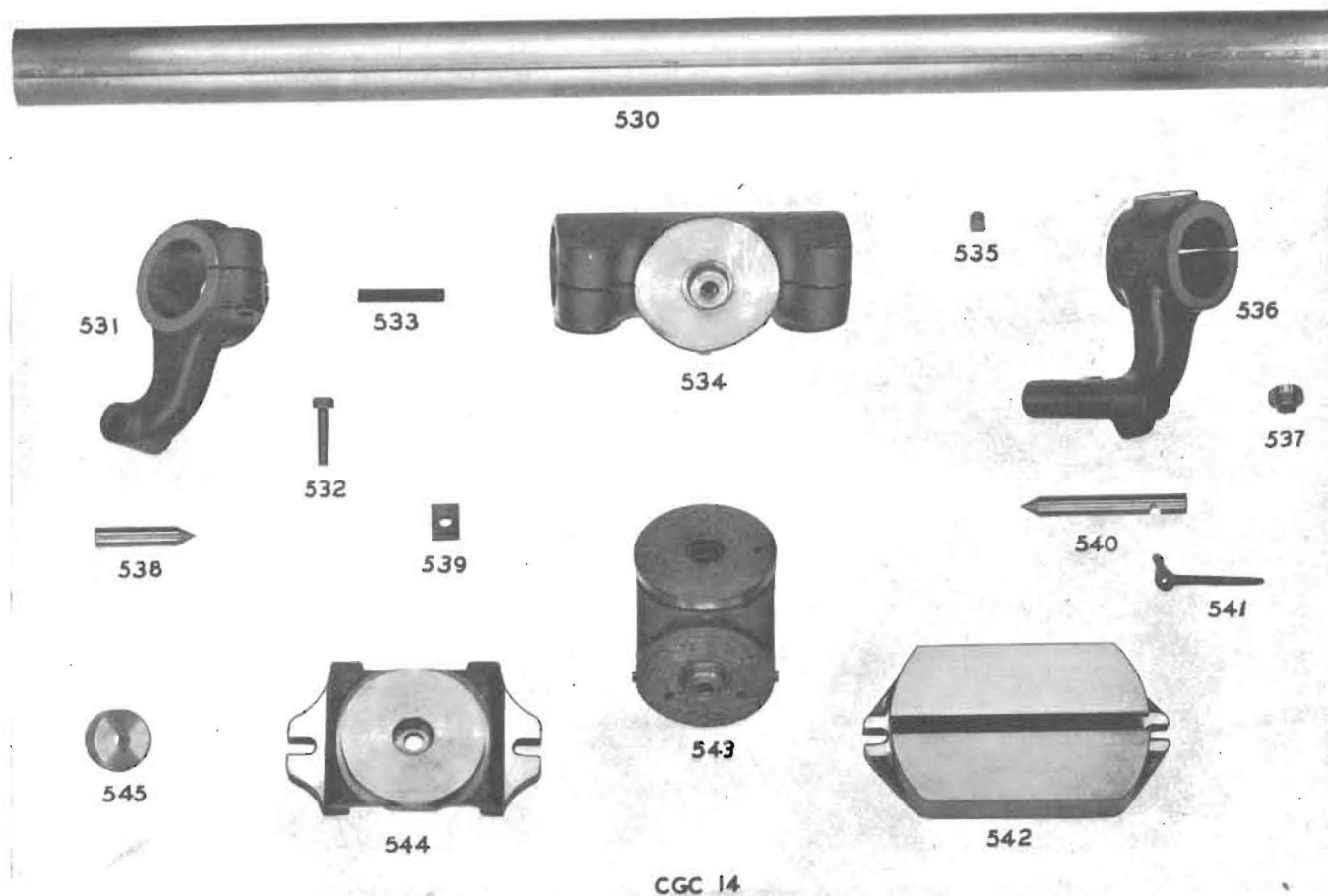
When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to order Repair Parts."

INTERNAL GRINDING ATTACHMENT PARTS

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LONG REAMER GRINDING ATTACHMENT PARTS



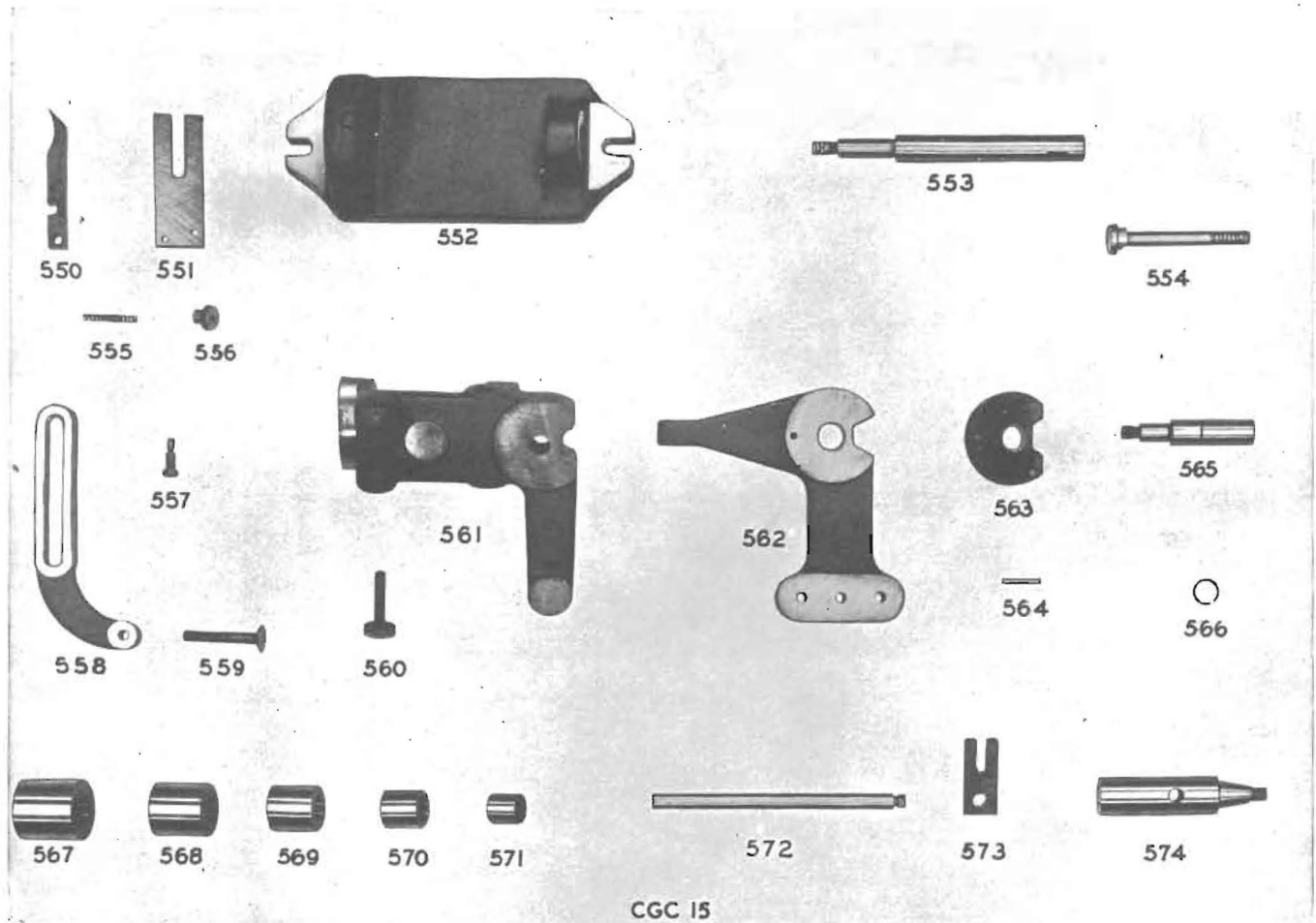
LONG REAMER GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
530	1	Bar—adjusting	46262	538	1	Center—headstock	107833
531	1	Bracket—headstock	46246	539	2	Clamp—workhead	62456
532	1	Pin—locating	83432	540	1	Center—tailstock	107831
533	1	Felt—strip	31437	541	1	Lever—for tailstock	7269
534	1	Carrier—bar	66797	542	1	Block—raising	68663
535	1	Pin—in bar carrier	38103	543	1	Support—workhead	66798
536	1	Bracket—tailstock	46244	544	1	Plate—workhead	69994
537	1	Cap—tailstock bracket	7263	545	1	Collar—tooth rest	46249

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to order Repair Parts."

PARTS LIST

GEAR CUTTER SHARPENING ATTACHMENT PARTS



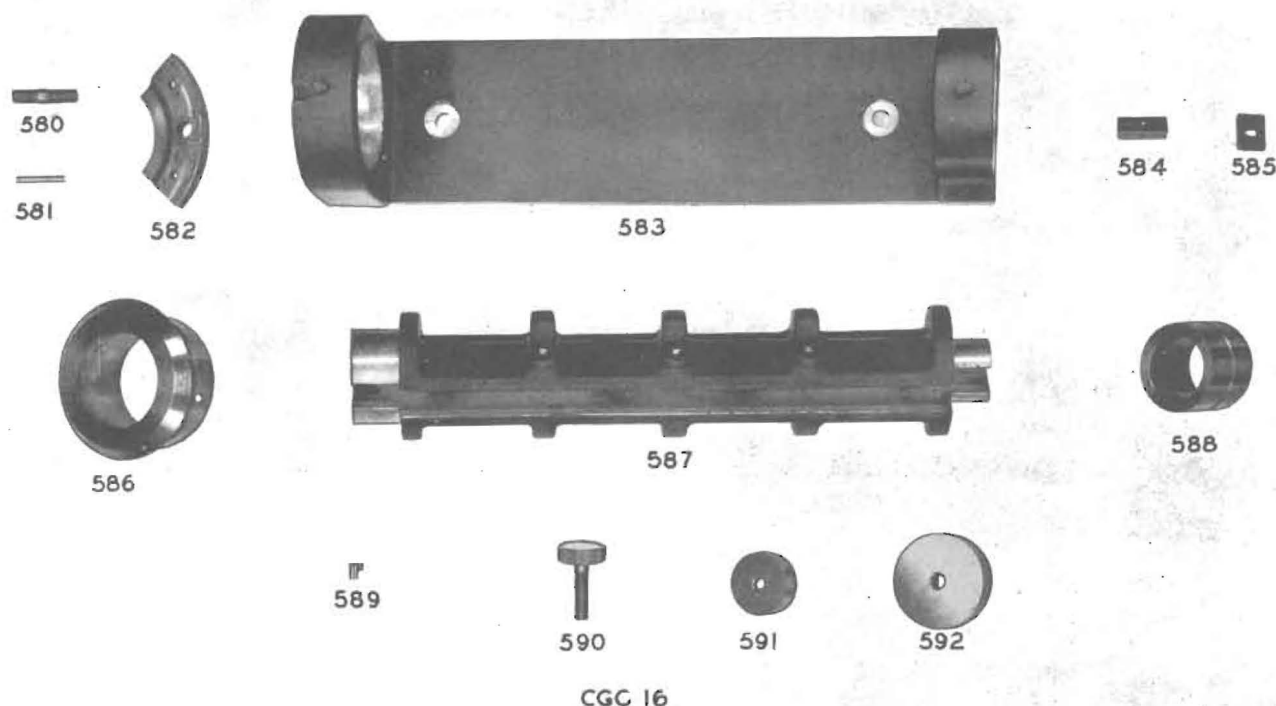
GEAR CUTTER SHARPENING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
550	1	Pawl	67497	565	1	Stud—cutter $\frac{7}{8}$ " diameter	62507
551	1	Holder—pawl	67496	566	1	Stud—cutter 22 M/M diameter	62514
552	1	Base—gear cutter grinder	62560	567	1	Spring—pilot wheel shaft	88921
553	1	Shaft	118448	568	1	Bush—cutter 2" diameter	62513
554	1	Bolt—centering gage	64960	569	1	Bush—cutter $1\frac{3}{4}$ " diameter	62512
555	1	Stud—holder	67494	570	1	Bush—cutter 45 M/M diameter	62518
556	1	Knob—holder stud	67495	571	1	Bush—cutter $1\frac{1}{2}$ " diameter	62511
557	1	Screw— $\frac{1}{4}$ "—fill.—head	62521	572	1	Bush—cutter 40 M/M diameter	62517
558	1	Bracket—centering gage	120005	573	1	Bush—cutter $1\frac{1}{4}$ " diameter	62510
559	1	Pin—centering gage	66796	574	1	Bush—cutter 32 M/M diameter	62516
560	2	Screw—($\frac{3}{8}$ "—knurled head)	62522			Bush—cutter 1" diameter	62509
561	1	Bracket—gear cutter grinding	64957			Bush—cutter 27 M/M diameter	62515
562	1	Plate—cutter supporting	62540			Stud—wheel guard—long	62450
563	1	Collar—cutter stud	64958			Arm—for wheel guard	62267
564	1	Pin—($\frac{1}{16}$ " x $1\frac{1}{4}$ " long)	3542			Extension spindle—4" long	67791

*These parts (marked with an asterisk) supplied only as part of the standard machine equipment, and are not included with the attachment.

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to order Repair Parts."

CENTERLESS GRINDER WORK SUPPORT BLADE GRINDING ATTACHMENT PARTS



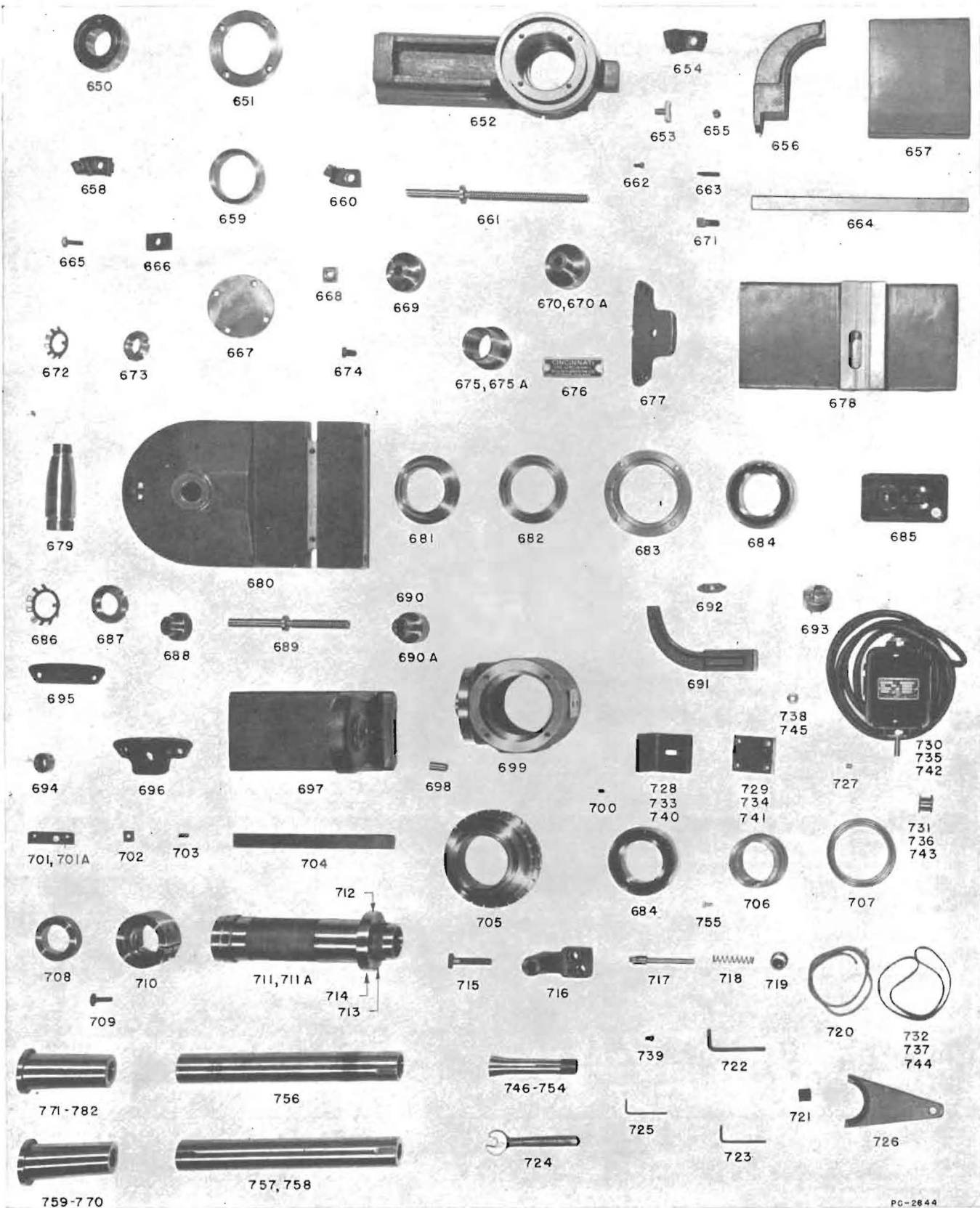
CENTERLESS GRINDER WORK SUPPORT BLADE GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
580	1	Stud—($\frac{1}{2}$ " x $2\frac{1}{8}$ " long).....	63000	587	1	Holder—blade.....	107503
581	2	Pin—($\frac{1}{4}$ " x $1\frac{1}{2}$ " long).....	3544	588	1	Bush.....	62998
582	1	Block—clamping.....	63001	589	2	Oiler.....	44980
583	1	Body—blade grinding attachment...	107502	590	3	Screw—adjusting.....	62999
584	2	Tongue—tee slot.....	63006	591	1	Plug—2" diameter.....	3555
585	2	Clamp—workhead.....	62456	592	1	Plug—3" diameter.....	3559
586	1	Dial.....	63002				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.

See page 53 "How to Order Repair Parts."

PARTS LIST



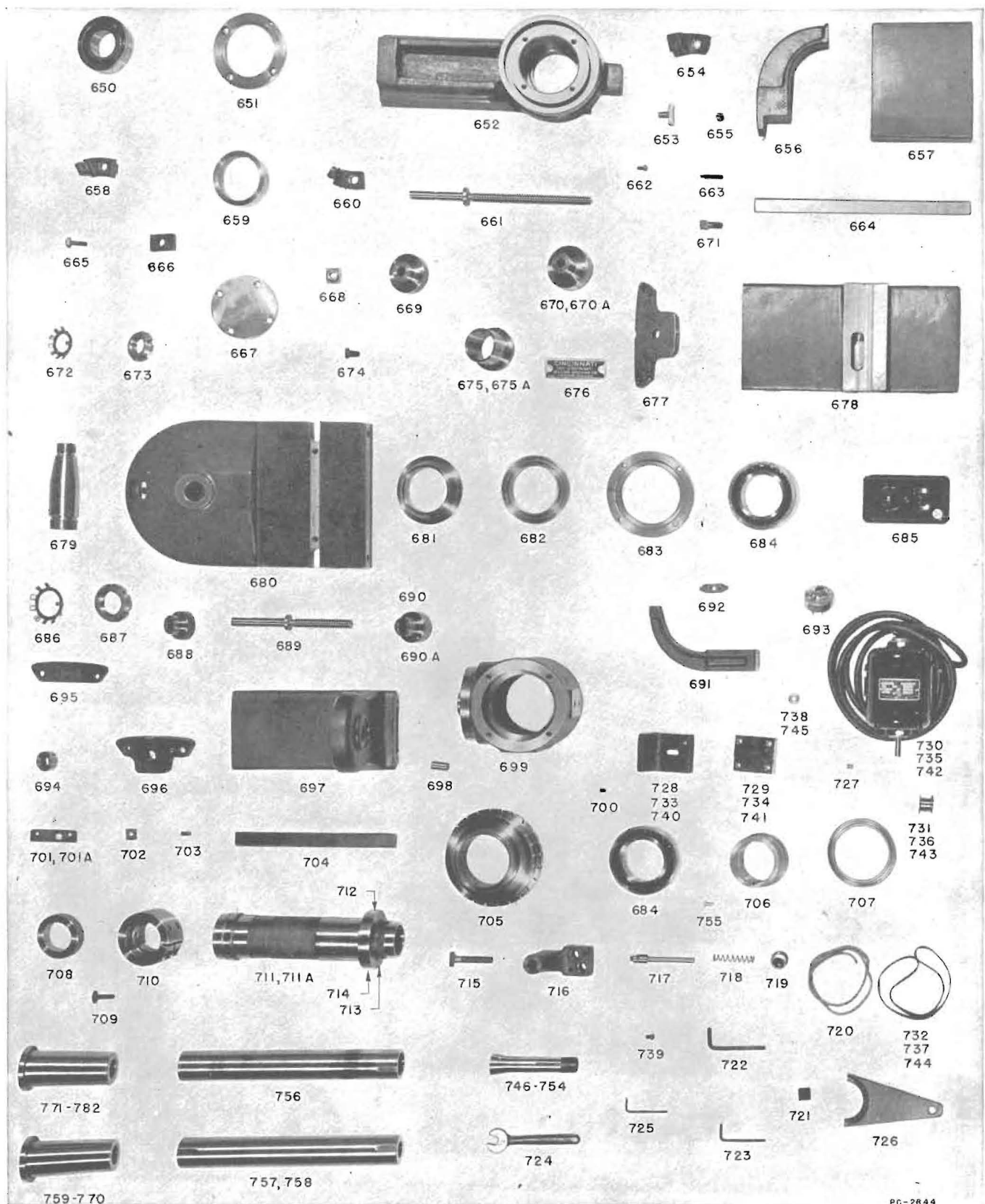
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No. 1 RADIUS GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
650	2	Bearing—Roller.....	206058	688	1	Knob—Cross Screw.....	103115
651	1	Retainer—Bearing.....	109184	689	1	Screw—Cross.....	112566
652	1	Swivel.....	103097	690	1	Dial—Cross Screw (English).....	103114
653	1	Shoe—Swivel Clamp.....	103134	690A	1	Dial—Cross Screw (Metric).....	115107
654	1	Clamp—Swivel.....	103133	691	1	Bracket—Centering Gauge.....	103142
655	1	Plug— $\frac{1}{8}$ ".....	62733	692	1	Plate—Centering Gauge.....	65815
656	1	Gauge—Setting.....	109190	693	1	Plug (On Demand).....	109366
657	1	Cover (Guard).....	103140	694	1	Collar—Screw (Cross).....	103103
658	1	Dog—Left.....	103130	695	1	Cover—Workhead Support.....	103108
659	1	Spacer (Bearing).....	103096	696	1	Apron—Workhead Support.....	103109
660	1	Dog—Right.....	103131	697	1	Support—Workhead.....	112570
661	1	Screw—Longitudinal.....	103102	698	1	Bushing—Index Lock.....	103127
662	2	Screw—(No. 10 Filister Head).....	70198	699	1	Head—Work.....	109196
663	6	Screw—Gib.....	103104	700	1	Screw—Set-In Index Bracket—($\frac{1}{4}$ ").....	103128
664	1	Gib—Slide.....	103101	701	1	Scale—Cross (English).....	112668
665	1	Screw—Adjusting Dog.....	103132	701A	1	Scale—Cross (Metric).....	112669
666	2	Clamp.....	106008	702	1	Pointer.....	103139
667	1	Cover—Swivel.....	109183	703	1	Shoe—Locking.....	109185
668	3	Nut—Dog Screw.....	103136	704	1	Gib—Support.....	112667
669	1	Knob—Longitudinal Screw.....	103106	705	1	Dial—Cutter Setting.....	103122
670	1	Dial—Longitudinal Screw (English).....	103105	706	1	Sleeve—Dial Setting.....	114628
670A	1	Dial—Longitudinal Screw (Metric).....	115108	707	1	Ring—Dust.....	103121
671	1	Pin—Stop.....	103098	708	1	Collar—Stop on Sleeve.....	109194
672	1	Washer (Lock).....	3807	709	1	Screw—Stop Collar.....	109182
673	1	Nut—Lock.....	3808	710	1	Clamp—For Sleeve.....	109192
674	1	Screw—For Dog.....	103135	711	1	Spindle—Workhead (No. 12 B.&S.), ($\frac{1}{8}$ " to $1\frac{1}{4}$ " Shank).....	115577
675	1	Adapter—Spindle (No. 12 B.&S— Regular).....	115576	711A	1	Spindle—Workhead (No. 5 Morse), ($\frac{1}{8}$ " to $1\frac{1}{4}$ " Shank).....	109191
675A	1	Adapter—Spindle (No. 5 Morse— On Demand).....	109193	712	1	Nut—On Spindle.....	109187
676	1	Plate—Name.....	103137	713	1	Shoe (Clamp in Nut).....	51168
677	1	Apron—Slide.....	103100	714	1	Screw (Clamp in Nut).....	78600
678	1	Slide.....	103099	715	1	Screw—Spindle Clamp.....	103124
679	1	Stud—In Base.....	106731	716	1	Bracket—Index Pin.....	103125
680	1	Base.....	106730	717	1	Pin—Index Lock.....	103126
681	1	Ring—Dust Front.....	103118	718	1	Spring (Index Pin).....	253
682	1	Ring—Dust—Inner Front.....	103117	719	1	Knob—Index Pin.....	103129
683	1	Cover—Work Head.....	103119	720	1	Wick—Roll.....	61419
684	2	Bearing—Ball.....	103120	721	1	Washer—Felt.....	103123
685	1	Switch (On Demand).....	109337	722	1	Wrench— $\frac{3}{8}$ " Allen.....	4047
686	1	Washer—Lock.....	3791	723	1	Wrench— $\frac{1}{2}$ " Allen.....	4053
687	1	Nut—Lock.....	105139	724	1	Wrench— $\frac{1}{2}$ " End.....	4080

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

PARTS LIST



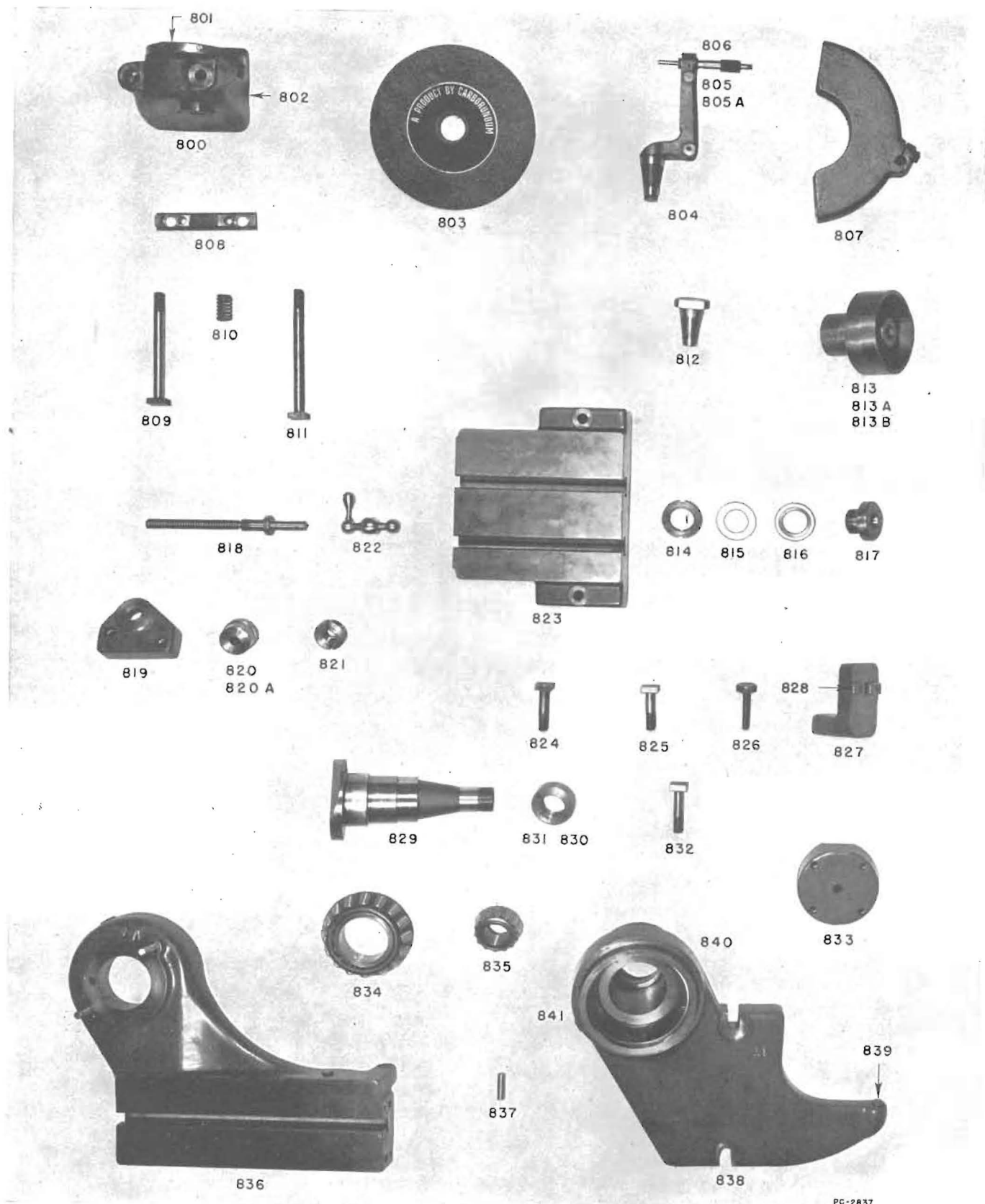
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No. 1 RADIUS GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
725	1	Wrench—For No. 10 Set Screw.....	216584	756	1	Sleeve—Draw In Collet.....	109201
726	1	Extractor—Collet.....	109189	—	1	Bolt—Draw In.....	109202
727	1	Cup—Oil $\frac{1}{4}$	60062				
		BODINE MOTOR				CUTTERS $\frac{3}{4}$" TO $\frac{7}{8}$" SHANK	
		FRAME No. 13—60 CYCLE AND D.C.		757	1	Sleeve—In Spindle $\frac{3}{4}$ " to $\frac{7}{8}$ ".....	109195
728	1	Bracket—Motor.....	103088			CUTTERS 1" to 1$\frac{1}{4}$" SHANK	
729	1	Plate—Motor.....	103087	758	1	Sleeve—In Spindle 1" to 1 $\frac{1}{4}$ ".....	109197
730	1	Motor—Bodine.....	109365			No. 5 MORSE OUTSIDE TAPER COLLETS FOR B&S AND MORSE TAPER SHANK CUTTERS	
731	1	Pulley—Motor.....	103085				
732	1	Belt—Endless.....	103089				
		OHIO MOTOR		759	1	Collet—No. 4 B&S Taper.....	109213
		FRAME No. C-1024—25, 50 AND 60 CYCLE; FRAME No. C-1026—D.C.; BODINE MOTOR FRAME No. 33—25 AND 50 CYCLE		760	1	Collet—No. 5 B&S Taper.....	109214
733	1	Bracket—Motor.....	111853	761	1	Collet—No. 6 B&S Taper.....	109215
734	1	Plate—Motor.....	111855	762	1	Collet—No. 7 B&S Taper.....	109216
735	1	Motor—1/40 H. P.—Ohio.....	111838	763	1	Collet—No. 8 B&S Taper.....	109217
736	1	Pulley—Motor.....	111854	764	1	Collet—No. 9 B&S Taper.....	109218
737	1	Belt—Endless.....	111852	765	1	Collet—No. 10 B&S Taper.....	109219
738	1	Washer.....	111851	766	1	Collet—No. 11 B&S Taper.....	109220
739	4	Screw—Round Head.....	111850	767	1	Collet—No. 1 Morse Taper.....	115081
		REDMOND MOTOR		768	1	Collet—No. 2 Morse Taper.....	109221
740	1	Bracket—Motor.....	111853	769	1	Collet—No. 3 Morse Taper.....	109222
741	1	Plate—Motor.....	121838	770	1	Collet—No. 4 Morse Taper.....	109223
742	1	Motor—Redmond.....	120225			No. 12 B&S OUTSIDE TAPER COLLETS FOR B&S AND MORSE TAPER SHANK CUTTERS	
743	1	Pulley—Motor.....	103085	771	1	Collet—No. 4 B&S Taper.....	115563
744	1	Belt—Endless.....	121839	772	1	Collet—No. 5 B&S Taper.....	115564
745	1	Washer.....	111851	773	1	Collet—No. 6 B&S Taper.....	115565
		CUTTERS $\frac{1}{8}$" TO $\frac{3}{8}$" SHANK		774	1	Collet—No. 7 B&S Taper.....	115566
746	1	Collet—Draw In $\frac{1}{8}$ ".....	109204	775	1	Collet—No. 8 B&S Taper.....	115567
747	1	Collet—Draw In $\frac{3}{8}$ ".....	109205	776	1	Collet—No. 9 B&S Taper.....	115569
748	1	Collet—Draw In $\frac{1}{4}$ ".....	109206	777	1	Collet—No. 10 B&S Taper.....	115571
749	1	Collet—Draw In $\frac{3}{16}$ ".....	109207	778	1	Collet—No. 11 B&S Taper.....	115572
750	1	Collet—Draw In $\frac{5}{16}$ ".....	109208	779	1	Collet—No. 1 Morse Taper.....	112341
751	1	Collet—Draw In $\frac{7}{16}$ ".....	109209	780	1	Collet—No. 2 Morse Taper.....	115568
752	1	Collet—Draw In $\frac{1}{2}$ ".....	109210	781	1	Collet—No. 3 Morse Taper.....	115562
753	1	Collet—Draw In $\frac{9}{16}$ ".....	109211	782	1	Collet—No. 4 Morse Taper.....	115570
754	1	Collet—Draw In $\frac{5}{8}$ ".....	109212			WITH COOLING SYSTEM ATTACHMENT FOR CYLINDRICAL GRINDING ONLY	
755	1	Key—Draw In Collet Sleeve.....	109203		1	Block—Raising 2".....	68663

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

PARTS LIST



PG-2837

No. 2 RADIUS GRINDING ATTACHMENT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
800	1	Support—Workhead.....	122213	820	2	Dial—Adjusting Screw (English)...	117085
801	1	Scale—on support.....	117090	820A	2	Dial—Adjusting Screw (Metric)...	117086
802	1	Plug ($\frac{5}{8}$ ").....	3530	821	2	Nut—Adjusting Screw.....	117083
803	1	Wheel—CINCINNATI No. 27.....	65613	822	2	Crank—Ball.....	101842
804	1	Gauge—Radius.....	117093	823	1	Plate—Top.....	117087
805	1	Micrometer Barrel (English).....	117099	824	2	Bolt—Tee Housing ($\frac{1}{2}$ " x $2\frac{1}{8}$ ").....	117074
805A	1	Micrometer Barrel (Metric).....	117094	825	1	Bolt—Tee ($\frac{1}{2}$ " x 2").....	3311
806	1	Pin ($\frac{1}{8}$ " x $\frac{7}{8}$ " in radius gauge).....	3540	826	1	Screw—Idler Adjusting.....	97206
807	1	Guard—Wheel.....	65376	827	1	Stop—Bracket.....	117096
808	1	Tongue—Support.....	117089	828	6	Tongue.....	3312
809	1	Bolt—Tee—Support.....	117091	829	1	Shaft—Swivel.....	117078
810	1	Spring.....	3933	830	1	Nut—Shoe Type (Lock).....	227195
811	1	Bolt—Tee—Support.....	117092	831	1	Shoe (Lock Nut).....	62459
812	1	Plug—Swivel Shaft.....	117095	832	2	Bolt—Tee ($\frac{1}{2}$ " x $2\frac{1}{4}$ ").....	3274
813	1	Pulley—Motor (50 cycle, 60 cycle and D.C.).....	107467	833	1	Cover.....	117077
813A	1	Pulley—Motor (25 cycle—1425 rpm).....	107468	834	1	Cone—Roller Bearing.....	117076
813B	1	Pulley—Motor (40 cycle—2225 rpm).....	107484	835	1	Cone—Roller Bearing.....	62188
814	1	Nut—Collet.....	67789	836	1	Table—Swivel.....	117079
815	1	Washer—Lock.....	67786	837	1	Pin—Straight.....	120362
816	1	Collar—Spacing.....	67784	838	1	Housing—Swivel.....	117073
817	1	Collet—Grinding Wheel.....	67790	839	1	Pin—Stop.....	117080
818	2	Screw—Adjusting.....	117082	840	1	Cup—Roller Bearing.....	62189
819	2	Housing—Adjusting Screw.....	117081	841	1	Cup—Roller Bearing.....	117075

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

PARTS LIST



600



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CGC 17



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627

RADIUS GRINDING ATTACHMENT PARTS LIST

(Early Design)

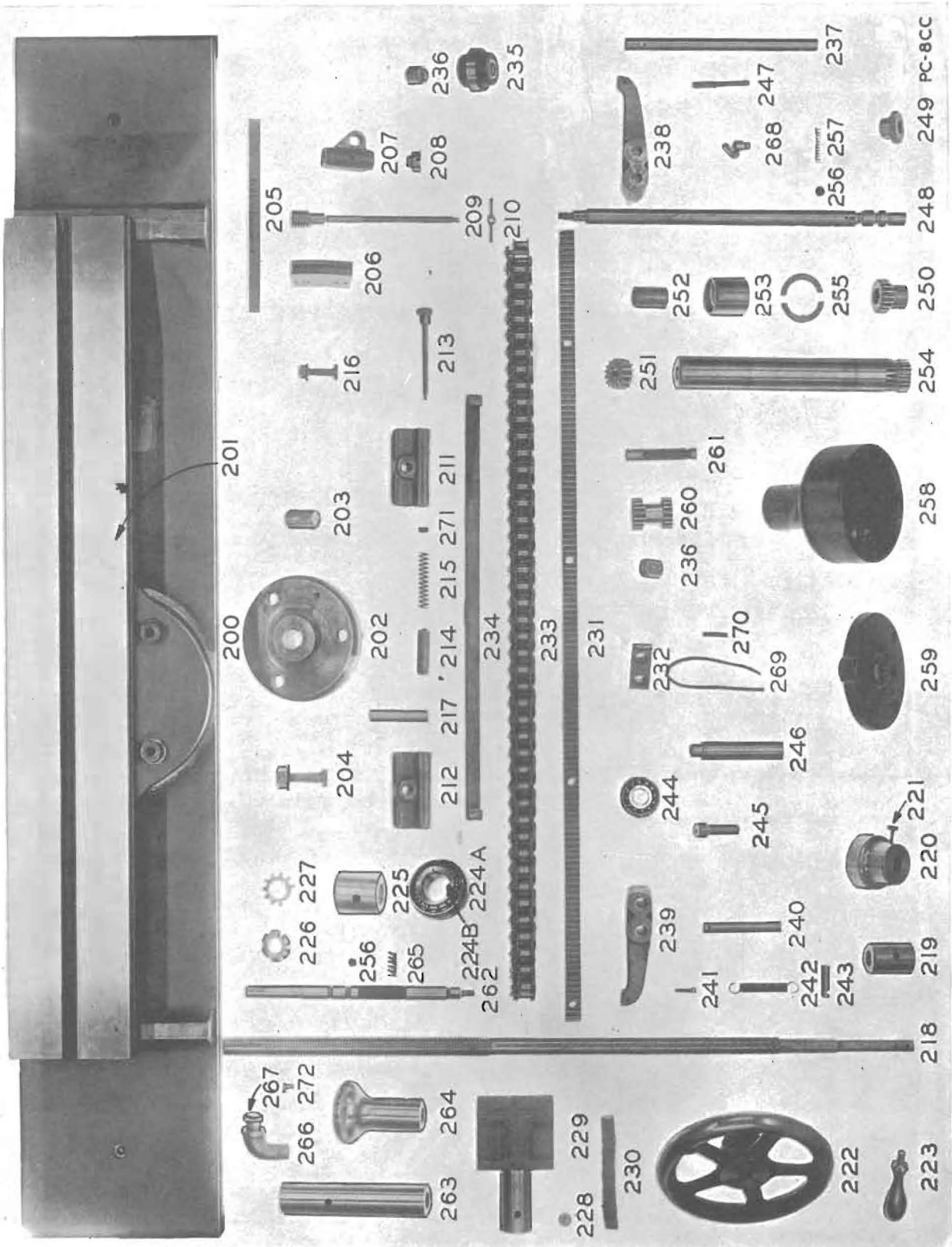
Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering Repair Parts
600	2	Cup—Timken 2523B bearing.....	62189	615	2	Screw.....	24896
601	2	Cone—Timken 2582 bearing.....	62188	616	1	Wheel—grinding Cincinnati No. 27— 8" x $\frac{3}{8}$ " x $1\frac{1}{4}$ ", straight.....	65613
602	1	Cover.....	78056	617	1	Locating gage.....	100635
603	1	Swivel—shaft.....	100634	618	1	Spring— $\frac{1}{8}$ " x $1\frac{1}{4}$ " long.....	3933
604	1	Washer.....	3809	619	1	Top plate.....	78050
605	1	Nut.....	3810	620	1	Support—workhead.....	78051
606	1	Swivel—housing.....	78058	621	2	Handle.....	3501
607	1	Carrier—roller.....	78054	622	2	Wheel—hand.....	3500
608	4	Roller.....	78063	623	2	Dial—(English).....	62537
609	1	Stud—roller.....	78064		2	Dial—(Metric).....	78572
610	1	Guard—roller track.....	78057	624	2	Nut.....	3806
611	1	Guard—wheel.....	65376	625	2	Washer.....	3805
612	1	Swivel—table.....	78049	626	2	Housing—Adjusting screw.....	78047
613	1	Stop—bracket.....	78053	627	2	Adjusting screw.....	78048
614	2	Stop—pin.....	78055				

NOTE: Wheel collet, nut, and collar (Key Nos. 183, 184 and 186, page 19) are included with this attachment. Also included is one of the pulleys Key No. 459, page 29.

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to order Repair Parts."

PARTS LIST

OLD STYLE SADDLE AND TABLE PARTS



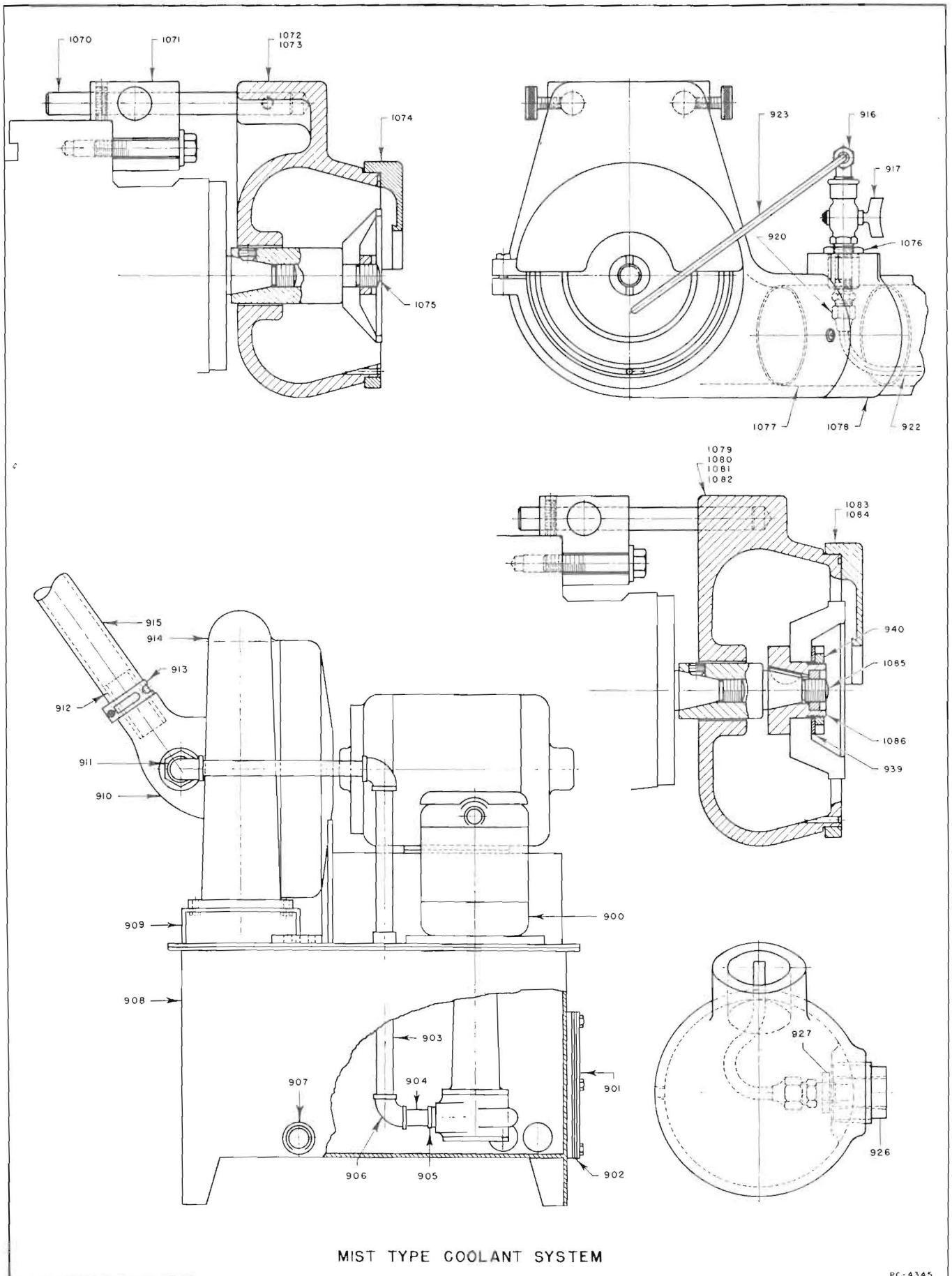
OLD STYLE SADDLE AND TABLE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
200	1	Table Slide (With Fittings).....	66229-RF	234	2	Link for Chain.....	67156
200	1	Table Slide.....	66229	235	4	Roller (Fitted with Bushings).....	62427
201	1	Table (With Fittings).....	62547-RF	236	10	Bushing ($\frac{7}{8}$ " x $\frac{3}{4}$ " long).....	3598
201	1	Table.....	62547	237	2	Shaft for Rollers.....	62426
202	1	Trunnion.....	62469	238	1	R. H. Lever.....	65533
203	1	Pin ($\frac{1}{8}$ " x $1\frac{3}{8}$ " long).....	1388	239	1	L. H. Lever.....	65532
204	2	Tee Bolt ($\frac{1}{2}$ " x $1\frac{3}{4}$ " long).....	62468	240	2	Stud for Lever.....	64797
205	1	Scale (English).....	62470	241	2	Spring Pin ($\frac{1}{4}$ "—20 N. C.).....	3861
205	1	Scale (Metric).....	66719	242	2	Extension Spring ($\frac{1}{2}$ " x $3\frac{1}{8}$ " long).....	66409
206	1	Worm Wheel Segment.....	10779	243	2	Spring Pin ($\frac{3}{8}$ " dia.).....	3382
207	1	Bearing for Adjusting Worm (Assembled with Worm).....	10758-FB	244	4	Ball Bearing (S. K. F. 6203).....	84866
207	1	Bearing for Adjusting Worm.....	10758	245	2	Stud in Lever.....	65530
208	1	Nut.....	10772	246	2	Stud in Saddle.....	66301
209	1	Adjusting Worm (Fitted with Nut).....	62471	247	2	Stop Screw ($\frac{3}{8}$ ").....	64798
210	1	Handle.....	702	248	1	Front Table Feed Shaft (Fitted with Knob).....	62496-F
211	1	R. H. Dog (Assembled).....	64962-F	249	1	Knob.....	62498
211	1	R. H. Dog.....	64962	250	1	Gear (20 T., 14 P.).....	62499
212	1	L. H. Dog (Assembled).....	64961-F	251	2	Pinion for Rack.....	62501
212	1	L. H. Dog.....	64961	252	2	Bushing (1" O. D. x $1\frac{1}{2}$ " long).....	3832
213	2	Thumb Screw.....	67041	253	1	Bushing ($1\frac{3}{4}$ " O. D. x $1\frac{3}{4}$ " long).....	3601
214	2	Plunger.....	64963	254	1	Sleeve Gear (19 T., 14 P.—Fitted with Bushings).....	62497
215	2	Compression Spring ($\frac{1}{4}$ " x $2\frac{1}{2}$ " long).....	1740	255	1	Split Collar.....	62500
216	2	Tee Bolt ($\frac{3}{8}$ " x $1\frac{1}{2}$ " long).....	3328	256	2	Ball ($\frac{5}{16}$ " Dia.).....	13665
217	1	Pin ($\frac{5}{8}$ " x $2\frac{3}{4}$ " long).....	3388	257	1	Compression Spring ($\frac{1}{4}$ " x $1\frac{5}{8}$ " long).....	877
218	1	Cross Feed Screw (Fitted with Nuts).....	67051	258	1	Housing (Hand Feed).....	62550
219	1	Bushing ($1\frac{1}{8}$ " O. D. x 2" long).....	63752	259	1	Cover for Housing.....	62541
220	2	Dial (English).....	62537	260	1	Gear (18 T., 19 T., 14 P.—Fitted with Bushings).....	62503
220	2	Dial (Metric).....	66631	261	1	Stud in Housing.....	62502
221	2	Thumb Screw ($\frac{1}{8}$ "—32 V threads).....	101	262	1	Rear Table Feed Shaft (Fitted with Knob).....	64803-F
222	2	Hand Wheel (Fitted with Handle).....	3510-F	262	1	Rear Table Feed Shaft.....	64803
222	2	Hand wheel.....	3510	263	1	Bushing.....	64802
223	2	Handle.....	3502	264	1	Knob.....	65658
224-A	2	Cup (Timken No. 09194).....	67049	265	1	Compression Spring ($\frac{1}{4}$ " x $\frac{1}{8}$ " long).....	262
224-B	2	Cone (Timken No. 09074).....	67050	266	1	Street Elbow ($\frac{1}{2}$ ").....	38853
225	1	Spacer.....	67055	267	1	Oil Filler Plug ($\frac{1}{2}$ " pipe).....	86826
226	1	Lock Nut ($\frac{3}{4}$ "—16 N. F.).....	3806	268	1	Oil Cup ($\frac{1}{16}$ " Straight).....	51737
227	1	Lock Washer ($\frac{3}{4}$ " Nut).....	3805	269	2	Wick ($\frac{1}{8}$ " x 7" long).....	64801
228	1	Plug ($\frac{5}{8}$ " dia.).....	3530	270	4	Oil Tube ($\frac{1}{4}$ " x $1\frac{1}{4}$ " long).....	64850
229	1	Nut for Feed Screw.....	64731	271	2	Pin ($\frac{1}{8}$ " x $\frac{1}{16}$ " long).....	64896
230	1	Wick.....	64722	272	1	Oil Cup ($\frac{1}{16}$ " Straight).....	44980
231	1	Rack.....	65529				
232	2	Block.....	66302				
233	2	Chain.....	67155				

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts.

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

PARTS LIST



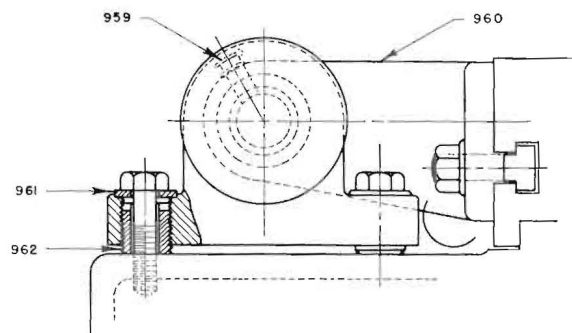
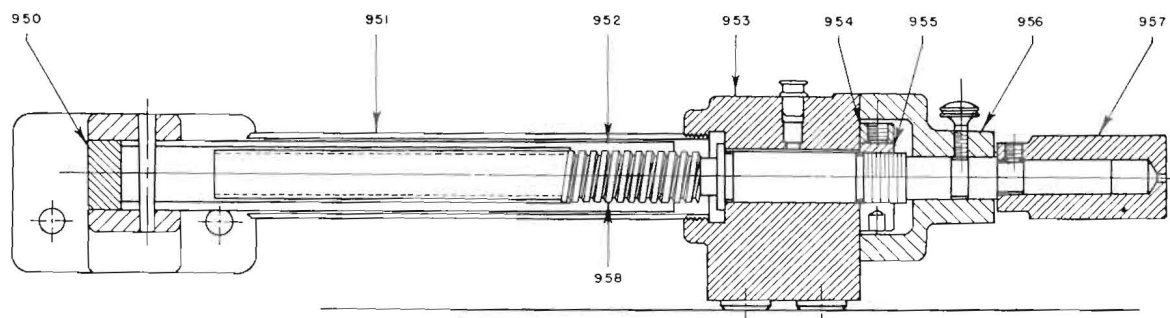
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MIST TYPE COOLANT SYSTEM

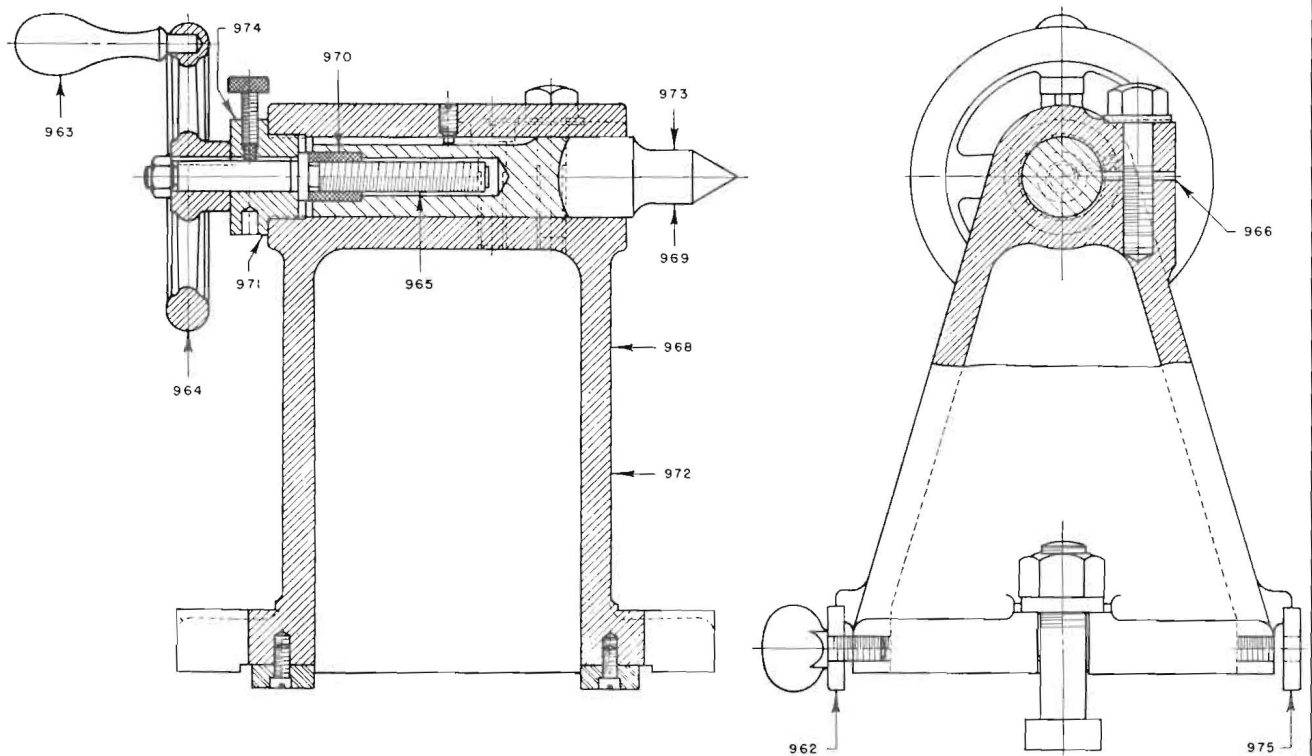
Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
900	1	Pump—Coolant	131046	1085	1	Extension—Spindle	137209
901	1	Cover—Clean out	130924	1086	1	Collet—Grinding Wheel	137210
902	1	Gasket—Clean out	130913				
903	1	Pipe— $\frac{3}{8}$ "	130929			3" DIAMETER GRINDING WHEEL	
904	1	Nipple—Relief $\frac{3}{8}$ "	30434	1074	1	Guard—Wheel Housing	136950
905	1	Bushing—Reducing $\frac{1}{2}$ " to $\frac{3}{8}$ "	213032	1075	1	Extension—Spindle	137208
906	2	Elbow— $\frac{3}{8}$ "	24024	1079	1	Housing—Wheel	137197
907	1	Coupling—Half	4059				
908	1	Tank—Coolant	130925			3 $\frac{1}{2}$ " DIAMETER GRINDING WHEEL	
909	1	Cover—Coolant Tank	137061				
910	1	Elbow—Exhaust Fan	137060	1080	1	Housing—Wheel	137198
911	1	Union—Elbow $\frac{3}{8}$ "	200818	1083	1	Guard—Wheel Housing	136922
912	1	Sleeve—Elbow	137059			3 $\frac{3}{4}$ " DIAMETER GRINDING WHEEL	
913	2	Clamp—Hose	137217				
914	1	Roto Clone Unit	134263	1081	1	Housing—Wheel	137206
915	1	Hose—Coolant	137534	1083	1	Guard—Wheel Housing	136922
916	1	Fitting—Compression Elbow	4016			4" DIAMETER GRINDING WHEEL	
917	1	Cock—Regulating	92086				
920	2	Fitting—Compression	4014				
922	1	Tubing—Saran— $\frac{3}{16}$ " x 68"	130927	1082	1	Housing—Wheel	137207
923	1	Tubing—Copper $\frac{1}{8}$ " x 7 $\frac{1}{2}$ "	130928	1083	1	Guard—Wheel Housing	136922
926	1	Plug—Pipe Elbow	130916			5" DIAMETER GRINDING WHEEL	
927	1	Bushing—Reducing $\frac{3}{8}$ " to $\frac{1}{8}$ "	59798				
1070	2	Rod—Wheel Housing	136936				
1071	1	Bracket—Coolant Guard	136937	1072	1	Housing—Wheel	137199
1076	1	Adapter	137195	1084	1	Guard—Wheel Housing	136943
1077	1	Sleeve—Connector Ring	137194			6" DIAMETER GRINDING WHEEL	
1078	1	Ring—Connector	137196				
		3 $\frac{1}{2}$ "-3 $\frac{3}{4}$ "-4"-5"-6" DIAMETER GRINDING WHEEL		1073	1	Housing—Wheel	137205
939	1	Washer	67786	1084	1	Guard—Wheel Housing	136943
940	1	Nut—Collet	67789				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

PARTS LIST



MICROMETER TABLE LEADSCREW ATTACHMENT



HEAVY DUTY TAILSTOCK-16" SWING

MICROMETER TABLE LEADSCREW ATTACHMENT

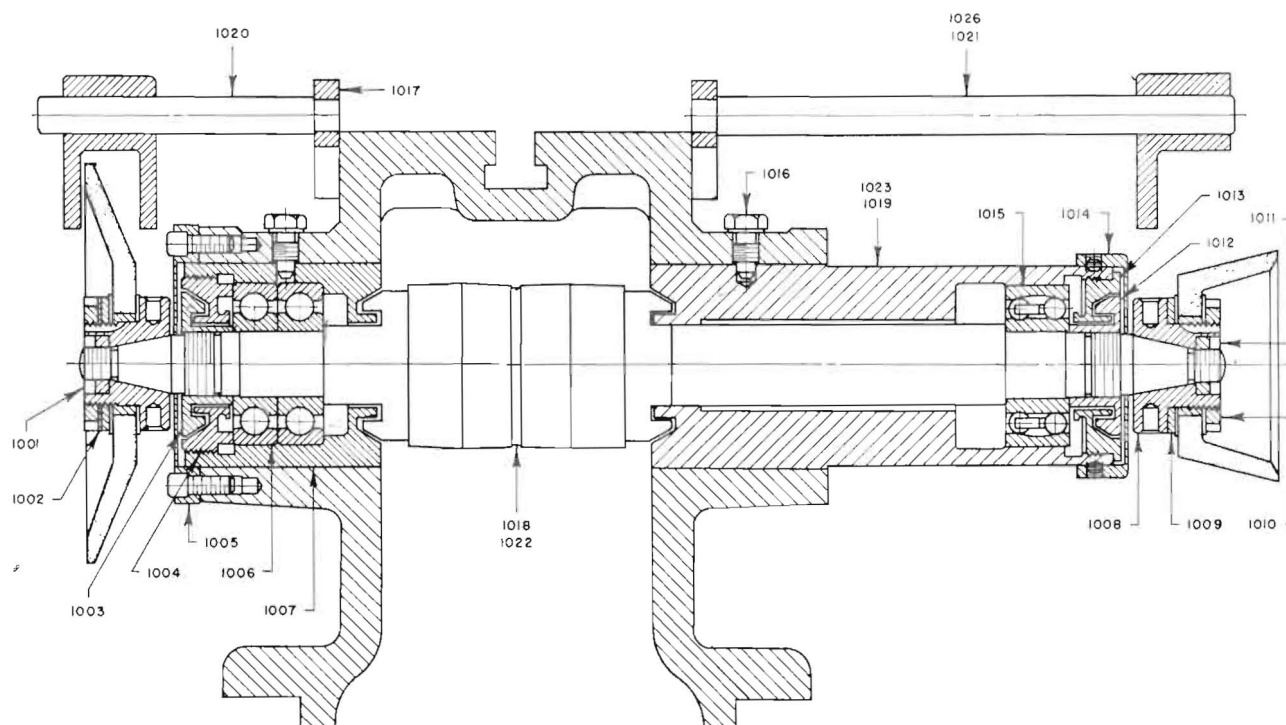
Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
950	1	Plug.....	3830	957	1	Knob—On screw.....	120713
951	1	Telescopic—Tubing.....	134513	958	1	Screw—Lead.....	120714
952	1	Nut—Acme thread.....	134514	959	2	Oiler— $\frac{5}{16}$ ".....	44980
953	1	Bracket—Screw.....	120715	960	1	Bracket—Nut.....	120718
954	1	Nut—Lock.....	4184	961	4	Washer.....	120717
955	1	Shoe—In lock nut.....	4218	962	4	Bushing—Adjusting.....	120716
956	1	Dial—Screw.....	134512				

HEAVY DUTY TAILSTOCK 16" SWING

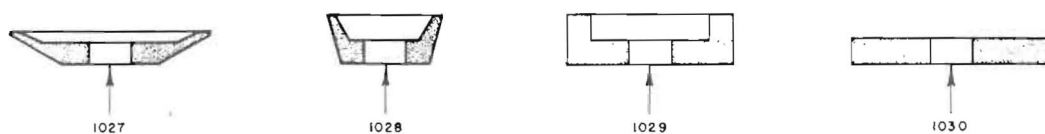
COMMON							
963	1	Handle.....	6809	969	1	Spindle—For R. H. tailstock.....	8118
964	1	Handwheel—Spindle adjusting.....	20467	970	1	Nut—In spindle for R. H. tailstock.....	8115
965	1	Screw—Spindle adjusting.....	20468	971	1	Cap—For R. H. tailstock.....	8125
966	1	Packing—Tailstock body.....	37694				
RIGHT HAND ONLY				LEFT HAND ONLY			
967	1	Clamp—Work head.....	62456	972	1	Body—Tailstock L. H. dead center.....	135962
968	1	Body—Tailstock, R. H. adjusting center.....	135961	973	1	Spindle—For L. H. tailstock.....	135963
				974	1	Cap—For L. H. tailstock.....	135964
				975	1	Clamp—Workhead.....	62456

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

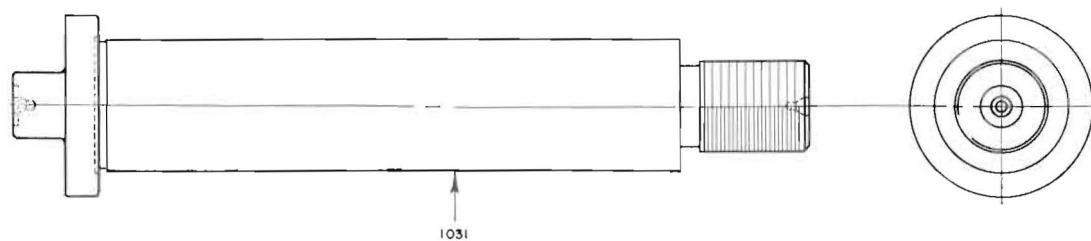
PARTS LIST



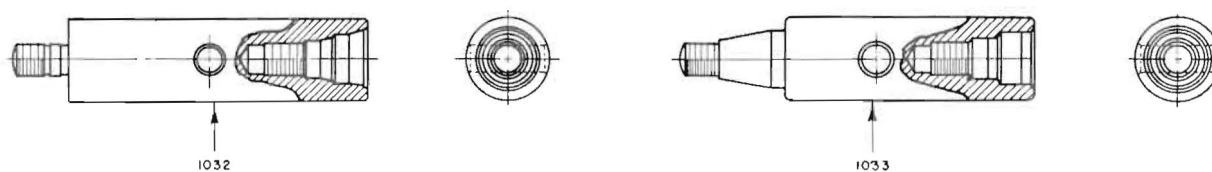
EXTENDED GRINDING WHEEL SPINDLES



STANDARD GRINDING WHEELS



CUTTER SHARPENING ARBORS



SPINDLE EXTENSIONS

EXTENDED GRINDING WHEEL SPINDLES

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
COMMON				1016	2	Screw—Retainer, locating	67614
1001	1	Nut—Spindle R. H.	67787	1017	2	Arm—For wheel guard	128879
1002	2	Washer—Lock	67786	4" EXTENSION RIGHT or LEFT			
1003	1	Nut—Dust guard R. H.	67793	1018	1	Spindle—Ball bearing R. H.	136003
1004	1	Nut—Retainer, bearing adjusting	67780		1	Spindle—Ball bearing L. H.	136004
1005	1	Guard—Dust	118980	1019	1	Retainer—Ball bearing	136010
1006	2	Bearing—Ball	141156	1020	1	Stud—Wheel guard short	128877
1007	1	Retainer—Ball, bearing	67611	1021	1	Stud—Wheel guard long	128879
1008	2	Collect—Grinding wheel	67790	6" EXTENSION RIGHT or LEFT			
1009	2	Collar—Spacing	67784	1022	1	Spindle—Ball bearing R. H.	136006
1010	2	Nut—Collet	67789		1	Spindle—Ball bearing L. H.	136007
1011	1	Nut—Spindle L. H.	67788	1023	1	Retainer—Ball bearing	135549
1012	1	Nut—Dust guard	67794	1020	1	Stud—Wheel guard short	128877
1013	1	Nut—Retainer	67612	1026	1	Stud—Wheel guard long	136008
1014	1	Guard—Dust	136009				
1015	1	Bearing—Ball, self-aligning	77724				

STANDARD GRINDING WHEELS

1027	TYPE 12	Dished—6" dia. x $\frac{3}{4}$ " x $1\frac{1}{4}$ " hole—AA60-H6-V10 Aloxite.		TYPE 1	Straight—8" dia. x $\frac{3}{8}$ " x $1\frac{1}{4}$ " hole—AA46-G6-V60 Aloxite.	
1028	TYPE 11	Flaring cup— $3\frac{1}{2}$ " dia. x $1\frac{1}{2}$ " x $1\frac{1}{4}$ " hole—AA60-H6-V10 Aloxite.		TYPE 1	Straight—6" dia. x $\frac{1}{8}$ " x $1\frac{1}{4}$ " hole—A60-P-B Aloxite Resinoid	
1029	TYPE 6	Straight cup—5" dia. x $1\frac{1}{2}$ " x $1\frac{1}{4}$ " hole—AA60-H6-V10 Aloxite.		TYPE 1	Straight— $\frac{5}{8}$ " dia. x $\frac{1}{2}$ " x $\frac{1}{4}$ " hole—EA60-J6-V10 Aloxite.	
1030	TYPE 1	Straight—6" dia. x $\frac{1}{2}$ " x $1\frac{1}{4}$ " hole—GA60-K6-V10 Aloxite.		TYPE 1	Straight—8" dia. x $\frac{1}{8}$ " x $1\frac{1}{4}$ " hole—A703-T-B Aloxite Resinoid. (Used for cutting off tubing, etc.)	
	TYPE 1	Straight— $\frac{7}{8}$ " dia. x $\frac{1}{2}$ " x $\frac{1}{4}$ " hole—EA60-J6-V10 Aloxite.				

CUTTER SHARPENING ARBORS

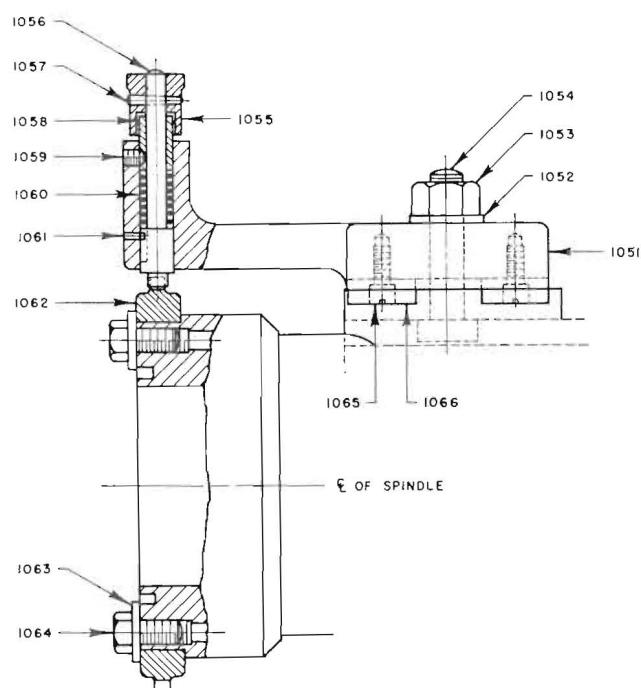
1031	1	Arbor—Cutter sharpening, $\frac{7}{8}$ " dia.	134519	1	Arbor—Cutter sharpening, $1\frac{1}{2}$ " dia.	134522
	1	Arbor—Cutter sharpening, 1" dia.	134520	1	Arbor—Cutter sharpening, 2" dia.	134523
	1	Arbor—Cutter sharpening, $1\frac{1}{4}$ " dia.	134521			

SPINDLE EXTENSIONS

1032	1	Extension—Spindle 4", $\frac{1}{2}$ " wheelhole R. H.	134269	1033	1	Extension—Spindle 4", $1\frac{1}{4}$ " wheelhole L. H.	134517
	1	Extension—Spindle 4", $\frac{1}{2}$ " wheelhole L. H.	134518		1	Extension—Spindle 2", $1\frac{1}{4}$ " wheelhole R. H.	73281
	1	Extension—Spindle 2", $\frac{1}{2}$ " wheelhole R. H.	78515		1	Extension—Spindle 2", $1\frac{1}{4}$ " wheelhole L. H.	134515
	1	Extension—Spindle 2", $\frac{1}{2}$ " wheelhole L. H.	134516				

When ordering repair parts give serial number, which is found below the name CINCINNATI on the front of the base.
See page 53 "How to Order Repair Parts."

PARTS LIST



INDEXING ATTACHMENT

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
1051	1	Bracket—Index pin	120203	1059	1	Screw—Set—in index bracket	103128
1052	1	Washer	3442	1060	1	Spring—In bracket	253
1053	1	Nut	3479	1061	1	Pin	2160
1054	1	Bolt—Tee	3274	1062	1	Plate—Index 24 slots	133647
1055	1	Knob—Index pin	103129	1063	2	Clamp—Workhead pulley	62455
1056	1	Pin—Index lock	103126	1064	2	Screw	2103
1057	1	Pin	140	1065	4	Screw	3486
1058	1	Bushing—Index lock	103127	1066	4	Tongue	3312

HOW TO ORDER REPAIR PARTS

You will receive quicker and better service if you will follow the instructions given below:

These six requirements are essential.

1. Correct and complete serial number of the machine. See paragraph "A".
2. Size and type of machine (No. 2 Cutter and Tool Grinder).
3. Description and name of part. See paragraph "B".
4. Amount wanted.
5. Urgency. See paragraph "C".
6. How to ship. See paragraph "D".

1 D 2 T 6 P - 146 New Machine

1 D 2 T 1 B - 29 Old Machine

Paragraphs

- A. The serial number on these machines may be found stamped on the front of the base below the name "CINCINNATI".
- B. In giving part number and name of part wanted, tell us where part number was obtained, namely:

Number stamped on part.

Prior Invoice.

Repair Parts Catalog.

If from parts catalog, give part number, name of part, key number and page number.

- C. In regard to urgency, tell us whether machine is down, or if parts ordered are for stock.
- D. Do not say to ship quickest way. Tell us how to ship. Parts may be sent by Air Mail, Parcel Post Special Delivery, Parcel Post Regular, Express, Motor Freight, or Rail Freight.

Specify clearly just what you want. If parts are to be fitted do not use the word "complete" as this always leaves a doubt in our minds as to how much to supply.

In some cases, due to the nature of the part, it will be necessary for us to supply additional related parts, especially if part wanted is obsolete.

MILLING MACHINE DIVISION / THE CINCINNATI MILLING MACHINE CO.

CINCINNATI, OHIO 45209 U.S.A.

MILLING MACHINES



horizontal
knee & column



vertical
knee & column



horizontal &
vertical bed type



rise & fall and tracer
controlled bed type

DIE SINKING MACHINES AND BROACHING MACHINES



horizontal &
vertical

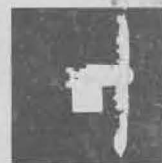


vertical

CUTTER SHARPENING MACHINES



nos. 1 & 2



monoset & optical

Products of the Milling Machine Division of The Cincinnati Milling Machine Co. are listed and symbolized here.

Products of The Cincinnati Milling Machine Co.'s other divisions include a complete line of centertype grinding machines, centerless grinding machines, roll grinding machines, chucking grinding machines, micro-centric grinding machines, special grinding machines, heating machines, metal forming machines, electrical machining equipment, special broaching machines, special machine tools and complete production lines, special machinery, numerical control systems, tracing systems, gaging systems, hydraulic motors, hydraulic and electro-hydraulic valves and components, cutting fluids and precision grinding wheels.

CINCINNATI

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